

National Park Service  
U.S. Department of the Interior



Castillo de San Marcos National Monument

# DRAFT GENERAL MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT





**DRAFT**

**General Management Plan and  
Environmental Impact Statement**

**Castillo de San Marcos National Monument  
St. Augustine, FL**

**March 2006**



## Draft

### **General Management Plan/Environmental Impact Statement Castillo de San Marcos National Monument St. Augustine, Florida**

Castillo de San Marcos National Monument was established as Fort Marion National Monument by Presidential Proclamation No. 1713 on October 15, 1924. The War Department administered it until it was transferred to the National Park Service (NPS) by Executive Orders No. 6166 of June 10, 1933 and No. 6228 of July 28, 1933. The Spanish name, Castillo de San Marcos, was restored to the park by Congress on June 5, 1942. Castillo de San Marcos has never had a General Management Plan/Environmental Impact Statement (GMP/EIS) prepared in conformance with the requirements of Public Law 95-625 and current NPS management policies and guidelines. A GMP/EIS is needed to decide what resource conditions and visitor experiences should be achieved for the next 15 to 20 years.

This document examines and analyzes the impacts of four alternatives for managing the park for the next 15 to 20 years. Alternative A, the No-Action Alternative, describes current park management and serves as a basis for comparison in evaluating the other alternatives. The emphasis of Alternative B would be on rehabilitating and maintaining the historic character of the fort and the landscape to the greatest extent achievable while providing for greater on-site visitor services by locating the visitor center authorized by Public Law 108-480, which was signed by President George W. Bush in December 2004, at the north end of the site. Alternative C represents a greater effort to achieve a more historic character to the site than in Alternative B by removing non-historic elements from the fort casemates and landscape and by locating the visitor

center off site. Alternative D focuses on preservation of the fort by removing ranger offices from the casemates and relocating them to a new structure in the visitor services zone. There would be very little change from existing conditions with respect to the landscape and the visitor parking lot and there would be no visitor center under this alternative. Alternative D is the NPS's preferred alternative.

Adverse impacts resulting from Alternative A would be negligible on natural resources, minor on park operations, with no adverse impact on most cultural resources. Archeological resources, however, would experience beneficial impacts due to the established resource protection measures for the identification and treatment of archeological resources that the NPS follows. Landscapes and visitor experiences would continue to have moderate to major adverse impacts. Under Alternative B there would generally be negligible adverse impacts on water quality due to the offsetting effect of impermeable surfaces on the site and minor to major beneficial impacts on cultural resources and visitor experiences. Negligible beneficial impacts on water quality would also result from Alternative C and impacts to cultural resources and visitor experiences would be mostly beneficial. Alternative C is the environmentally preferred alternative. Alternative D would result in negligible adverse impacts on landscapes, minor beneficial impact on historic structures, and beneficial impacts on archeological resources, which would continue to have the protection afforded by NPS

management. Overall impacts to operations would be minor and beneficial.

Throughout this document the term “landscape” is used in the colloquial sense meaning generally the grounds outside the historic and non-historic structures on the site. The term should not be confused with “cultural landscape” which in NPS idiom means “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein associated with a historic event, activity, or person, or that exhibits other cultural or aesthetic values”. The “cultural landscape” of the park has not been fully documented by completion of a Cultural Landscape Report (CLR). It is a principal recommendation of this plan that any changes, restoration, or other treatments applied to this landscape should occur only pursuant to the completion of the CLR, coordination with the Florida State Historic Preservation Officer (SHPO) and compliance with Section 106 of the National Historic Preservation Act (NHPA).

This *Draft GMP/EIS* has been distributed to other agencies and interested organizations and individuals for their review and comment. The public comment period for this document will last for 60 days after the Environmental Protection Agency’s notice of availability has been published in the Federal Register.

# How To Comment On This Plan

If you wish to respond to the material in this document you may submit your comments, with your name and address, by any one of several methods. You may mail written comments to:

David Libman  
National Park Service  
Southeast Regional Office  
100 Alabama Street  
1924 Building  
Atlanta, GA 30303

You may also email comments to the following address: [casa\\_gmp@nps.gov](mailto:casa_gmp@nps.gov). Please include your name and return address in your Internet message, and if possible, request a return receipt.

You may hand-deliver comments to Castillo de San Marcos National Monument headquarters at 1 South Castillo Drive, a short distance north of the fort in the park on the edge of Matanzas Bay in historic St. Augustine.

You may enter comments directly through the Internet by directing your web browser to the following URL address:

<http://parkplanning.nps.gov>

Under the "Choose a Park" drop-down window, find Castillo de San Marcos National Monument and then click "Go".

It is the practice of the NPS to make all comments, including names and addresses of respondents who provide that information, available for public review following the conclusion of the [NEPA] process. Individuals may request that the NPS withhold their name and/or address from public disclosure. If you wish to do this, you must state this prominently at the

beginning of your comment.

Commentators using the website can make such a request by checking the box "keep my contact information private." NPS will honor such requests to the extent allowable by law, but you should be aware that NPS may still be required to disclose your name and address pursuant to the Freedom of Information Act. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representative or officials of organizations or business, available for public inspection in their entirety.

This method for public comment submittal stems from court rulings concerning the release of public comments, and it is included as recommended by the Office of the Solicitor, Department of the Interior.





# Summary

The purpose of this Draft GMP/EIS for Castillo de San Marcos National Monument is to present a direction for resource preservation and visitor use and a basic foundation for decision making for the park for the next 15 to 20 years. The GMP/EIS provides a comprehensive direction for managing resource activities, visitor activities, and development that would be appropriate at the park in the future.

An important element in determining the desired resource and visitor experience conditions for the park has been public participation. Many issues and concerns were identified by the general public and NPS staff as part of the initial planning efforts, and comments were solicited at public meetings, in planning newsletters, and on the Internet.

Once public input was received the planning team identified four alternatives for managing the park—a no-action and three action alternatives, including the preferred alternative. The plan also analyzes and presents the environmental and socioeconomic impacts or consequences of implementing each of those alternatives. That analysis comprises the environmental impact statement part of this document. A summary of the alternatives and the important impacts is given below.

## **ALTERNATIVE A – NO-ACTION**

### **Description**

The No-Action Alternative represents continuation of the current management direction and approach at the park. It is a way of evaluating the proposed actions of the other three alternatives.

Under the No-Action Alternative, protection and preservation activities for

the national monument's historic structures, museum collections, and landscape would continue as currently practiced. Visitor facilities would be maintained as they currently exist.

The existing road access, parking area, and pedestrian path system within the park would continue, and visitor recreational opportunities and interpretive programs in the park would continue.

### **Impacts**

Impacts resulting from the No-Action Alternative would be negligible to minor on natural resources and park operations. Most cultural resources, including structures, and museum collections would have no adverse impacts, except for the landscape which would have a moderate adverse impact.

Visitor access, recreational and educational opportunities, and visitor facilities and services would remain relatively unchanged, continuing to have adverse impacts on visitor experience. The park would continue to be an important visitor attraction for the City of St. Augustine, contributing to the tourism industry in the region.

## **ALTERNATIVE B – EMPHASIS ON REHABILITATION OF CASEMATES AND LANDSCAPE – NEW VISITOR CENTER ON-SITE**

### **Description**

This alternative would implement a phased rehabilitation of the historic character of the fort and the landscape to the greatest extent achievable while still providing for visitor comfort and greater on-site visitor services.

It would remove from the fort and the landscape as many modern intrusions as practical.

The initial phase of the alternative would consist of removing approximately 2/3 of the visitor parking lot\* and re-contouring the area to match the existing glacis (the grassy slope closest to the fort walls) and fort green. In the second phase, some administrative functions would be removed from the fort and three casemates would be returned to a more historic appearance.

Subsequently, the park would seek funding, through the NPS 5-year line item construction program, for a new visitor center, authorized by Public Law 108-480, to be constructed at the north end of the park site. The administrative functions that are removed from the fort under this alternative would be relocated to this new facility.

The view of the fort at the fort entrance would be enhanced by removing the ticket booth and relocating the ticket sales function to a compatible site in accordance with Section 106 of the National Historic Preservation Act (NHPA).

## Impacts

This alternative emphasizes rehabilitation of some of the fort's casemates and the landscape to historic conditions, creating minor to major beneficial impacts on cultural resources.

The combination of a new visitor center at the north end of the site, wider sidewalks with exhibit space along Highway A1A, the rehabilitation of cultural resources, and increased living history, costumed interpretation, and period crafts would

result in moderate to major beneficial impacts on the visitor experience.

## ALTERNATIVE C – EMPHASIS ON REHABILITATION OF CASEMATES AND LANDSCAPE – NEW VISITOR CENTER OFF-SITE

### Description

Alternative C, like Alternative B, would implement a phased removal of some modern intrusions from the fort and the landscape. This alternative would remove the modern additions from only two casemates in the fort but would remove a greater portion of the visitor parking lot than in any of the alternatives. The ticket booth would be relocated to enhance the view of the fort at the entrance. Administrative offices and maintenance operations would remain in the current locations at the north end of the site.

The visitor center authorized by Public Law 108-480 would be located off-site convenient to the park and the Spanish Quarter.

### Impacts

This alternative would result in negligible beneficial impacts to water quality in Matanzas Bay due to reduction in the amount of paved surface on the site. Impacts to floodplains would also be negligible due to the construction off site of a new visitor center which would be minor in comparison to the actions of others outside the park grounds.

Alternative C would have beneficial impacts to archeological resources and to historic views and the landscape.

The general character of the park would change under this alternative. Alternative C would provide visitors with additional

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\* An adequate amount of paved area would be retained for handicapped designated parking, emergency vehicle access, and drop-off area for the St. Augustine tourist trains.

interpretive opportunities as well as providing for a more visually pleasing landscape. Visitor facilities would be expanded to include a visitor center. The impacts on visitor experience would be major and beneficial.

## **ALTERNATIVE D – EMPHASIS ON PRESERVATION OF THE FORT**

### **Description**

This alternative would focus on preservation of the fort by removal of ranger offices from the casemates and relocating them to a new structure in the Visitor Services Zone. There would be very little change from existing conditions with respect to the visitor parking lot or the landscape.

The ticket booth and sales function would be relocated away from the fort entrance to a site compatible with the NHPA.

The existing parking lot would remain. Additional parking will be available in a new city parking garage now under construction behind the St. Augustine Visitor Information Center.

### **Impacts**

This alternative would result in negligible adverse impacts to water quality in Matanzas Bay due to the area of impermeable surfaces on the site and the possibility of vehicle pollutants as well as increased runoff. Alternative D would also result in negligible adverse impacts on floodplain values for the park and surrounding areas.

Alternative D would have beneficial impacts to archeological resources. Due to retention of the parking lot however impacts on historic views and the landscape would be major and adverse. Three of

seven modern intrusions from the fort's casemates would be removed resulting in minor beneficial impacts to historic structures.

The general character of the park would not change under this alternative. Alternative D would not address the need for a visitor center and would retain the visitor parking lot. This alternative would have moderate to major adverse effects on visitor use and experience.



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# Chapter 1 - Purpose of and Need for Action

*This section defines the purpose of the General Management Plan/Environmental Impact Statement (GMP/EIS) for Castillo de San Marcos National Monument and why the GMP/EIS is needed. It includes planning direction and guidance, and identifies the issues (decision points and resources and values at stake) that were considered.*

## **PURPOSE OF THE GENERAL MANAGEMENT PLAN**

The National Parks and Recreation Act of 1978, Public Law 95-625, requires the NPS to prepare a GMP/EIS for every area that it administers. The purpose of this plan is to ensure that each park has a clearly defined direction for resource preservation and visitor use. General management planning is the first step in a multi-staged planning process. It focuses on why the park was established and what resource conditions and visitor experiences should be achieved and maintained over time. Decisions about site-specific actions such as the design and footprint of administrative and/or visitor facilities will be deferred to subsequent implementation planning. The GMP/EIS is designed to provide guidance for park managers for 15 to 20 years into the future assuming that conditions affecting management and operations remain relatively unchanged during this period.

## **THE GENERAL MANAGEMENT PLAN PROCESS**

This GMP/EIS has been developed in consultation with NPS program managers, other Federal agencies, state, local and regional agencies, tribal representatives, interested organizations and individuals, and the general public. It is based upon an analysis of existing and potential resource conditions and visitor experiences, environmental (including natural, cultural, and socioeconomic) impacts, and costs of alternative courses of action.

## **BACKGROUND INFORMATION**

Castillo de San Marcos National Monument (hereinafter referred to as the “park”) was established as Fort Marion National Monument by Presidential Proclamation No. 1713 (43 Stat. 1968) on October 15, 1924. The War Department administered the site until it was transferred to the Department of the Interior, National Park Service, by Executive Orders No. 6166 of June 10, 1933 and No. 6228 of July 28, 1933. Congress restored the Spanish name, Castillo de San Marcos, to the park on June 5, 1942 (56 Stat. 312).

Castillo de San Marcos National Monument is located in the city of St. Augustine, St. Johns County, Florida. St. Augustine is located on the eastern coastal plain of Florida. It is a low-lying, sandy area protected from the sea by a number of barrier islands. The San Sebastián River runs west of the city and formed a natural boundary for the colony early in its history.

## REGIONAL LOCATION MAP



The site of Castillo de San Marcos National Monument comprises approximately 20 acres and lies just north of the city's central plaza, fronting Matanzas Bay. A seawall and water battery separates the park from the waters of Matanzas Bay on the fort's east side. The site is a rolling, grassy area dotted with a few trees. The outer portions of the grounds are flat up to the glacis, which slopes upward toward the fort and roughly follows the contour of the moat and covered way. The site is irregular in shape, with much of its western boundary following the contour of State Road A1A. Also within the boundary is the City Gate, which is located just across A1A.

The Cubo Line originated during the eighteenth century, while the Castillo de San Marcos was still under construction. Following the English siege of St. Augustine in 1702, the Spanish government recognized the need for improved defenses for the city and undertook construction of defense works around the fort and town. The Cubo Line formed the innermost line of defense; north of the line, the hornwork and Fort Mose line provided additional barriers between the land approach to the city and the Castillo de San Marcos. The Cubo Line and the Rosario Line, another defense work, created the line of circumvallation that walled St. Augustine on the north, west, and south sides. Built of earth and wood, these outworks had short life spans in the subtropical Florida climate and were periodically reconstructed. The Spanish rebuilt the Cubo Line in 1808 and, at the same time, built the City Gate to allow entrance into St. Augustine through the line. The Cubo Line, now a reconstructed earth and log defense works, extends west from the fort to the City Gate, with an interruption in the line due to the intersection of A1A.

Until December 28, 2004, the park boundary included Orange Street, a public road that runs west from the City Gate



Castillo de San Marcos NM – Looking North

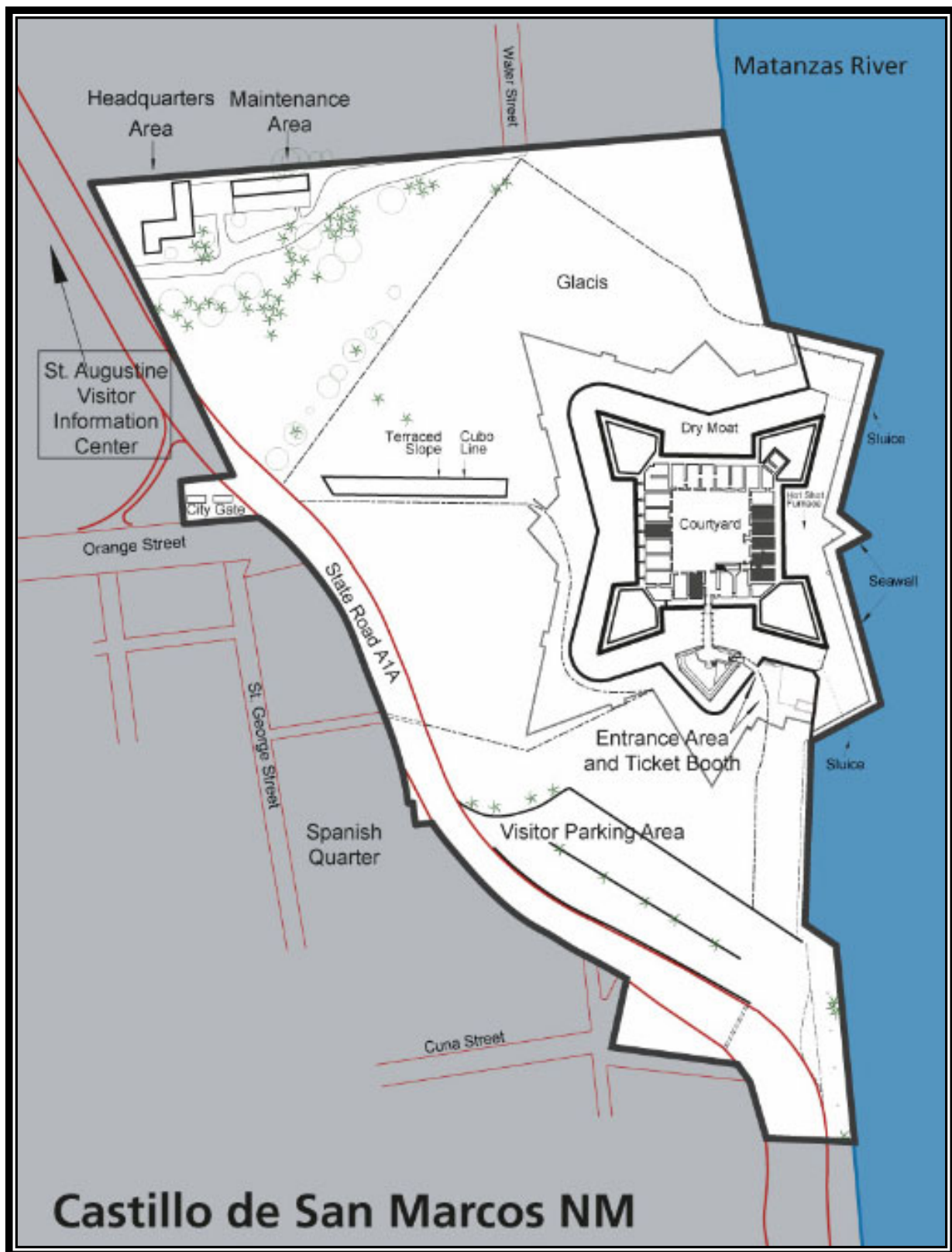
across the peninsula to U.S. Highway 1 west of the fort. On that date President George W. Bush signed Public Law 108-480 that, in addition to authorizing the NPS to construct a visitor center for the national monument, provided for the transfer of title of the lands occupied by Orange Street to the City of St. Augustine. Castillo de San Marcos is the oldest remaining European fortification in the continental United States. It was built by the Spanish between 1672 and 1695, just over one hundred years after the founding of St. Augustine in 1565. St. Augustine was the first permanent European settlement in the continental United States and much of this unique history is still apparent throughout the city today. No property conveys this sense of history more prominently than Castillo de San Marcos National Monument. The fort and grounds stand as a vivid reminder of the battles among European powers for control of North America. Its bastioned design reflects the conventions of military architecture and technology of its day.

Castillo de San Marcos served primarily as an outpost of the Spanish Empire. The fort guarded the colonial town against invaders and protected sea routes so that treasure ships could depart to Spain without incident. Although it has served several

nations throughout its history, Castillo de San Marcos has never been taken by military force. During the 18th century, the fort went from Spanish control to British and back to Spanish, where it remained until Florida was purchased by the United States in 1821. In 1825, the War Department changed the name of Castillo de San Marcos to Fort Marion in honor of American Revolutionary War General Francis Marion.

Confederate forces occupied Fort Marion between January of 1861 and March of 1862 when it was reoccupied by forces of the United States for the duration of the Civil War. Fort Marion was also used as a prison for members of the Cheyenne, Kiowa, Comanche, Caddo and Arapaho tribes during the 1870s and 1880s as western migration of settlers resulted in conflicts over land and resources and ultimately led to removal of the native peoples from their homelands by the United States Army.

In colonial times the Castillo de San Marcos sat at the northern edge of the city where it commanded the land and sea routes leading to the settlement. Today, the core of colonial St. Augustine remains south of the monument, while the modern city has grown outward in all directions.



**CASTILLO DE SAN MARCOS SITE MAP**

\* Shaded casemates house administrative functions.

## NEED FOR THE GENERAL MANAGEMENT PLAN

Castillo de San Marcos National Monument has never had a GMP/EIS prepared in conformance with the requirements of Public Law 95-625 and current NPS management policies and guidelines. The 1977 Draft Master Plan does not address many of the issues facing the park today. A GMP/EIS is needed to decide what resource conditions and visitor experiences should be achieved for the next 15 to 20 years.

## GUIDANCE FOR THE PLANNING EFFORT

### Purpose, Significance, and Mission Statements

The park purpose, significance, and mission statements are established parameters that frame decisions about managing resources and providing for visitor use. These statements become the foundation upon which management alternatives are developed and set the limits for any actions taken under the alternatives.

The following statements describe the primary reasons that the park was established. These statements provide the most fundamental criteria for determining actions proposed in this plan.

**Purpose:** The purpose of the park is to preserve and protect the fortress and related cultural resources as described in the Historic Resources Study of March 1997<sup>1</sup>, and to interpret their architectural, political, military, and social history.

**Significance:** The park is significant because:

- The fort is the oldest masonry fortification in the continental United States and is a remarkably well-preserved specimen of Spanish military architecture and engineering.



Castillo de San Marcos NM-Looking South

- It is a massive and tangible representation of the military struggle that occurred in Florida between the European powers, particularly Spain and England, for control of North America.
- It was the principal fortification in the region from 1672 to 1900, having been occupied by the armies of Spain, Great Britain, the Confederate States of America, and the United States.
- It was the site, during the Second Seminole Wars in 1837, of the imprisonment of many Seminole leaders, including Chief Osceola, twenty of whom made a daring escape, and it was used again to imprison members of the Cheyenne, Kiowa, Comanche, Caddo, and Arapaho tribes in 1876 and approximately 500 Apaches in 1886 as western migration of settlers resulted in conflicts over land and resources and the ultimate removal by the United States Army of the native peoples from their homelands.

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<sup>1</sup> Jennifer D. Brown, Castillo de San Marcos National Monument Historic Resource Study, National Park Service, March 1997





Indian prisoners in the courtyard at Fort Marion about 1875. Undated stereograph - library of the St. Augustine Historical Society.

- The incarceration of western tribes in St. Augustine resulted in the first use of Castillo de San Marcos as a tourist attraction as curious and intrigued townspeople and visitors began to purchase craft items from the Indians who were allowed to walk around the town during daylight hours.
- It was also here at Ft. Marion in 1876 that Lt. Richard H. Pratt, who later founded the Carlisle Indian Industrial School in Pennsylvania, developed his training and assimilation programs.

**Mission:** The mission of The park is to preserve and protect the oldest masonry fortification in the continental United States and its related cultural resources, and to foster public understanding of their historical, military, and architectural significance.

### Special Mandates and Administrative Commitments

NPS policy requires that planning teams review and consider in the development of alternative management concepts those actions, procedures, processes, etc. that the park is required by law, regulation, or administrative commitment to fulfill. These

are generally referred to as “musts”. Special mandates and administrative commitments are a separate category of “musts” that are park-specific rather than common to all National Park System areas.

The park was created on October 15, 1924 by Presidential Proclamation No. 1713. Neither the proclamation nor any subsequent legislation established any special mandates for The park. Administrative commitments are generally defined as agreements that have been reached through formal, documented processes with other Federal, state, or local agencies that refer to the co-management of specific natural or cultural resources. The park acknowledges the following administrative commitments:

The park has granted a Special Use Permit to the City of St. Augustine whereby 50 percent of the net<sup>2</sup> revenues collected by the city from the parking meters in the park parking lot are disbursed to the park.

### SERVICEWIDE LAWS AND POLICIES

Numerous congressional acts and executive orders guide management of National Park System units. The NPS has also established policies for managing the units under its stewardship. Much of sound park management is specified in laws and policies that apply to all units of the National Park System. The National Park System encompasses all areas managed by the NPS including national parks, monuments, memorials, historic sites, rivers, recreation areas, battlefields, and other designations. Each of these areas must comply with the National Environmental Policy Act (NEPA), the Threatened and Endangered Species Act, the Federal Water Pollution Control Act (Clean Water Act), the Clean Air Act, the National Historic Preservation Act, the Archeological Resources Protection Act, the

<sup>2</sup> Net = Gross Revenues – State Sales Tax

Native American Grave Protection and Repatriation Act, the Historic Sites, Buildings and Antiquities Act, Executive Orders 11990 and 11988 (Wetlands Protection and Floodplain Management), and other laws and regulations ensuring the protection of resources and the providing of visitor services. A more complete listing of these laws can be found in Appendix A.

The NPS has established policies for all units under its stewardship. These are identified and explained in the service-wide policy document of the NPS, Management Policies 2001. These service-wide legal mandates and policies are generally categorized as:

- Cultural resource management requirements
- Natural resource management requirements
- Visitor experience and park use requirements
- Special use management requirements

### Management of Cultural Resources

The NPS is steward of many of America's most important cultural resources. Cultural resources are categorized as archeological resources, historic landscapes, ethnographic resources, historic and prehistoric structures, and museum collections. Current service-wide laws and policies require that the following cultural resource management conditions be achieved at the park:

- Provisions for public access and appreciation of the park's cultural resources without compromising their historic integrity or ability to be preserved unimpaired for future generations.

- Employment of the most effective concepts, techniques, and equipment to protect cultural resources against theft, fire, vandalism, overuse, deterioration, environmental impacts, and other threats without compromising the integrity of the resources.
- Provisions for the long-term preservation of public access to, and appreciation of features, materials, and qualities contributing to the significance of cultural resources.
- Treatment of historic landscapes will preserve significant physical attributes, biotic systems, and uses when those uses contribute to historical significance.
- Treatment decisions and implementation procedures will be based on sound preservation practices to enable long-term preservation of a resource's historic features, qualities, and materials.
- Contemporary alterations and additions to a historic landscape must not change, obscure, or destroy its significant spatial organization, materials, and features.

**Planning Parameters:** Laws, regulations, and policies provide specific guidance about managing cultural resources. In each alternative, the NPS will take the following actions to meet legal and policy requirements related to cultural resource management:

- Protection of archeological resources against human agents of destruction and deterioration whenever practicable. Archeological resources subject to vandalism and looting will be periodically monitored, and, if appropriate, fencing, signs, remote-sensing alarms, and other protective measures will be installed. Training and public education programs will be developed to make park staff and



the public aware of the value of the park's archeological resources and the penalties for destroying them.

- Collect, protect, preserve, provide access to, and use objects, specimens, and archival and manuscript collections to aid understanding among park visitors and to advance knowledge in the humanities and sciences.
- The treatment of a cultural landscape will preserve significant physical attributes, biotic systems, and uses when those uses contribute to historical significance. Treatment decisions will be based on a cultural landscape's historical significance over time, existing conditions, and use. There are three types of treatment for extant cultural landscapes: preservation, rehabilitation, and restoration.
- The treatment of historic and prehistoric structures will be based on sound preservation practice to enable the long-term preservation of a structure's historic features, materials, and qualities. There are three types of treatment for extant structures: preservation, rehabilitation, and restoration.

Compliance with the Native American Graves Protection and Repatriation Act in the event of inadvertent discovery of human remains or funerary objects as a result of any man made or natural earth disturbing action.

### **Management of Natural Resources**

Natural resources, processes, systems, and values found in parks include:

- Physical resources such as water, air, soils, topographic features, geologic

features, paleontological resources, natural soundscapes, and clear skies;

- Physical processes such as weather, erosion, cave formation, and wildland fire;
- Biological resources such as native plants, animals, and communities;
- Biological processes such as photosynthesis, succession, and evolution;
- Ecosystems; and
- Highly valued associated characteristics such as scenic views.

Within the boundary of the park there are no common natural resources as defined by NPS policies. The 20-acre site has been modified throughout its history by human activity. Management activities with respect to natural resources within the park boundaries are limited to those with potential impacts on water (adjacent Matanzas River) and floodplains.

### **Visitor and Employee Safety**

The NPS has a continuing concern about the health and safety of its employees and others who spend time in the parks – whether as visitors, volunteers, contractors, concession employees, or in another capacity. Those who participate in work or recreational activities in the parks are always at risk of accident, injury, or illness. The NPS is committed to reducing these risks and the associated pain, suffering, and financial expense. Current service-wide laws and policies require that the following visitor and employee safety conditions be achieved in the park:<sup>3</sup>

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<sup>3</sup> Source: NPS Organic Act, 2001 NPS Management Policies, DO-83: Public Health, DO-50b: Occupational Safety and Health

- While recognizing that there are limitations on its capability to totally eliminate all hazards, the NPS and its concessionaires will seek to provide a safe and healthful environment for visitors and employees.
- Acknowledging that all recreation activities pose a certain degree of risk which the NPS cannot totally control, visitors must assume a substantial degree of risk and responsibility for their own safety when visiting areas that are managed and maintained as natural, cultural, or recreational environments.
- Provide a safe and healthful place of employment, and protect Federal and private property from accidental damage or loss associated with NPS operations.
- Protect the health and well-being of NPS employees and park visitors through the elimination or control of disease agents and the various means of their transmission to man and to ensure compliance with applicable federal, state, and local public health laws, regulations, and ordinances. Implementation of this policy will be tempered by the Organic Act's requirement that the NPS conserve the scenery and natural and historic objects and wildlife therein in such a manner and by such a means that will leave them unimpaired for the enjoyment of future generations.

**Planning Parameters:** The NPS will take the following actions to meet legal and policy requirements related to visitor and employee safety at the park:

- Provide a safe and healthy environment for visitors, contractors, and employees while recognizing potential limitations

to these conditions given the overarching requirement to conserve the park's cultural and natural resources unimpaired.

- Provide a safe and healthy environment for visitors, contractors, and employees while recognizing potential limitations to these conditions due to available funding and staffing and the risks associated with certain recreational activities.

### **Actions Outside Castillo de San Marcos National Monument**

Community and ecological processes sometimes cross park boundaries. Similarly, park boundaries may not incorporate all of the natural resources, cultural sites, and scenic vistas that relate to park resources or the quality of visitor experiences. Therefore, activities proposed for adjacent lands may significantly affect park programs, resources, and values. Conversely, NPS activities may have impacts outside park boundaries. Current service-wide laws and policies require that the following conditions related to outside actions be achieved in the park:<sup>4</sup>

- NPS will recognize that parks are integral parts of larger regional environments, and will work cooperatively with others to anticipate, avoid, and resolve potential conflicts; protect park resources and values; provide for visitor enjoyment; and address mutual interests in the quality of life of community residents, including matters such as economic development and resource and environmental protection. In particular, the park will work closely with the city's preservation commission to mitigate any potential negative impacts to park resources and values.

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<sup>4</sup> Source: NPS Organic Act, 2001 NPS Management Policies

- Superintendents will encourage compatible adjacent land uses by actively pursuing a host of cooperative approaches, including commenting on planning and regulatory processes and briefing the public and appropriate officials about the impacts of proposed land use changes. This coordination serves to heighten visitor enjoyment and appreciation of the park and its prominence in the overall historic setting of St. Augustine.

**Planning Parameters:** The NPS will take the following actions to meet legal and policy requirements related to relationships with non-NPS agencies or actions outside of the park:

- Work cooperatively with others to anticipate, avoid, and resolve potential conflicts and address mutual interests.

## PLANNING OPPORTUNITIES AND ISSUES

Planning issues are derived from an examination of the full range of comments and ideas expressed by park staff, other agencies, neighbors, the general public, and other stakeholders during the scoping process. A detailed discussion of the consultation and civic engagement process employed by NPS in preparing this document can be found in Appendix B. Throughout the remainder of this document the term “stakeholders” will be used to mean any individual, agency, or organization with an interest in the future of the park. An understanding of the park mission and identification of important planning issues have helped to shape the development of the management alternatives in this plan.

The following paragraphs summarize the full range of planning issues identified during scoping so far. The range of issues falls

generally into two categories: A) Comments most appropriately addressed by a GMP/EIS, and B) Comments most appropriately addressed by other plans. Comments discussed within these two broad categories are further subdivided into groups according to the general topic they address. A short discussion and recommendation follows each comment group so the reader might derive additional insight into how particular groups of comments were interpreted and used to formulate the alternative management concepts.

Comments most appropriately addressed by a GMP/EIS are:

### Administrative Uses of the Fort

**Discussion.** Castillo de San Marcos National Monument represents over 300 years of military and political history as well as military architecture and engineering. Some have expressed objections to the use of some parts of the fort for modern offices, restrooms, a souvenir outlet, and a ticket booth. They would like the visitor to leave all vestiges of modern life outside the fort and essentially enter another era and have as authentically accurate an historical experience as possible once inside. Others take the position that some of these modern intrusions are essential for public safety, comfort, and administrative effectiveness.

**Planning Guidance.** The essence of the planning challenge at The park is to achieve the desired visitor experience while providing for necessary administrative and safety considerations. The decisive factor regarding maintaining administrative functions inside the fort is impairment. If these functions can be maintained over a long period of time without causing impairment to the park’s cultural resources (as defined in NPS Management Policies 2001, Section 1.4.5), then another rationale

for their removal would have to be employed, such as an enhanced visitor experience. This decision involves a number of tradeoffs. Ultimately, the following question must be addressed: Can all or some administrative functions be removed from the fort for the purpose of creating the best possible visitor experience without unacceptable compromises?



Ranger Office Inside Fort Casemate

## The Parking Lot

**Discussion.** As the most prominent and historically significant structure in St. Augustine, the Castillo de San Marcos draws hundreds of thousands of visitors each year.<sup>5</sup> Most visitors arrive in cars only to find parking in the Old City of St. Augustine to be scarce. The visitor parking lot at the park is an important source of revenue for the park and the current availability of parking adjacent to the Old Spanish Quarter is important to visitors and merchants alike. Conversely many historians, preservationists, and others would like to see modern facilities such as the parking lot removed or relocated to further enhance the landscape. Even if the parking lot were to be removed, the park would still be bordered by State Road A1A, the Intracoastal Waterway, and the commercial district that lies across A1A. Given the park's surroundings, the benefits to the historic

setting from removing the parking must be weighed against the loss of revenue to the park. Under any scenario there would be a need to retain some accessible parking spaces and space for drive through and drop-off for the St. Augustine tourist trains.

**Planning Guidance.** Would the gain from rehabilitating the landscape be worth the loss of revenue that would result from removing or reducing the size of the parking lot? Currently, the City of St. Augustine is moving forward with construction of a parking structure on the site of the existing parking lot located behind the city's Visitor Information Center (VIC). This structure would address a host of parking problems in the historic district as well as serve the needs of park visitors.



View of Parking Lot from Top of Fort

## Recreation on the Glacis and Fort Green

**Discussion.** Like many National Park System areas in urban settings, the park, by virtue of its expansive and gently sloping grassy plain in front of the fort, attracts a variety of park neighbors, other local citizens, tourists, and visitors, who sunbathe, walk, jog, picnic, and generally enjoy the few shady areas on the north end of the landscape. The resulting challenge is how much recreational use of the glacis and fort green can be accommodated without unacceptable adverse impacts to either resources or visitor experience and what

<sup>5</sup> 648,875 in 2004

types of activities are appropriate for the park to support there?

**Planning Guidance.** The purpose, mission, and significance of the park will serve as the primary guidance for addressing the recreational use of the glaciis and specific types of activities and use that would be appropriate under each management alternative.

### **A Visitor Center for the National Monument**

**Discussion.** The park does not have a stand-alone visitor center. There is a fee booth at the fort entrance and an Eastern National Bookstore just inside the main gate. Several of the casemates have exhibits and/or furniture to give visitors an impression of what life was like at the fort but there is no museum or other visitor orientation media or displays either on or off-site. An off-site visitor center could actually dissuade visitation to the fort. It is possible that many people might view exhibits, buy souvenirs and then skip the fort entirely. On the other hand, there are limited options on site for building a stand-alone visitor center due to the potential of adverse effects to the historic integrity of the site.

**Planning Guidance.** A free-standing visitor center would provide visitors an introduction to the history and resources of the park, interpretive exhibits and artifacts that give more detailed information about associated events and people, a place where interpretive programs can be conducted, restrooms, water fountains, and some administrative space.

Despite the many attributes that a new visitor center would provide, the NPS must seriously consider the linkages between (1) new facilities and the ability to maintain existing structures of all kinds, (2) what impacts new facilities would have on

current staffing, (3) what trades-offs would need to be made if additional staff resources are not provided to maintain and operate new facilities, and (4) what new trends or technology are emerging that will allow park management and staff to meet visitor needs and protect resources without building traditional infrastructure or facilities.

Another consideration regarding a new visitor center for the park is that on December 23, 2004, President George W. Bush signed Public Law 108-480, an act to authorize funding for a visitor center for the park. This legislation contains two principal provisions with respect to a visitor center:

- “Authorization. – Subject to the availability of appropriations and the project being prioritized in the NPS’s 5-year, line-item construction program, the Secretary of the Interior may design and construct a Visitor Center for the Castillo de San Marcos National Monument.”
- “Preferred Alternative. - The Visitor Center authorized in subsection (a) shall be located and constructed in accordance with the Preferred Alternative identified in the Record of Decision for the General Management Plan for the Monument, expected to be signed in 2005.”

Finally, it is important to understand the terminology of legislative acts in the present context. An authorization is not a mandate, nor does it provide an appropriation of funds for the item that has been “authorized”. Future legislation may provide such funding but at the time this document is being made public, no such legislation has been introduced.

## The Visitor Experience

**Discussion.** There were very few scoping comments that related directly to the visitor experience and of those there was considerable variation. This could indicate a high level of visitor satisfaction with their experience at the park.

**Planning Guidance.** Considerable effort should be spent on consultation with the full range of individuals, groups, public officials and agencies, and organizations (including Tribes) to ensure that all viewpoints with respect to interpretation and visitor experience are considered in the development of management alternatives.

## Historic Integrity of the Fort

**Discussion.** Although the Castillo de San Marcos was built by the Spanish and served that empire for the longest period, it eventually came under British control and finally passed to ownership by the United States. Owing to the softness and porosity of the coquina stone construction, the Spaniards covered the surface of the fort with white stucco and decorated it with a red horizontal stripe. Eventually time, weather, and the moist, salt air combined to strip away the stucco covering and reveal the familiar coquina structure we see today. Allowing the deterioration of the coquina to continue is not a management option. Some treatment of the coquina surface to prevent further deterioration will occur. Likewise the grounds and other resources of the park will continue to be preserved and protected.

**Planning Guidance.** While the specific treatments and other measures used to protect and preserve the coquina and the glacis are beyond the scope of the GMP/EIS, management prescriptions must address these subjects both in terms of desired future resource conditions and visitor experiences.

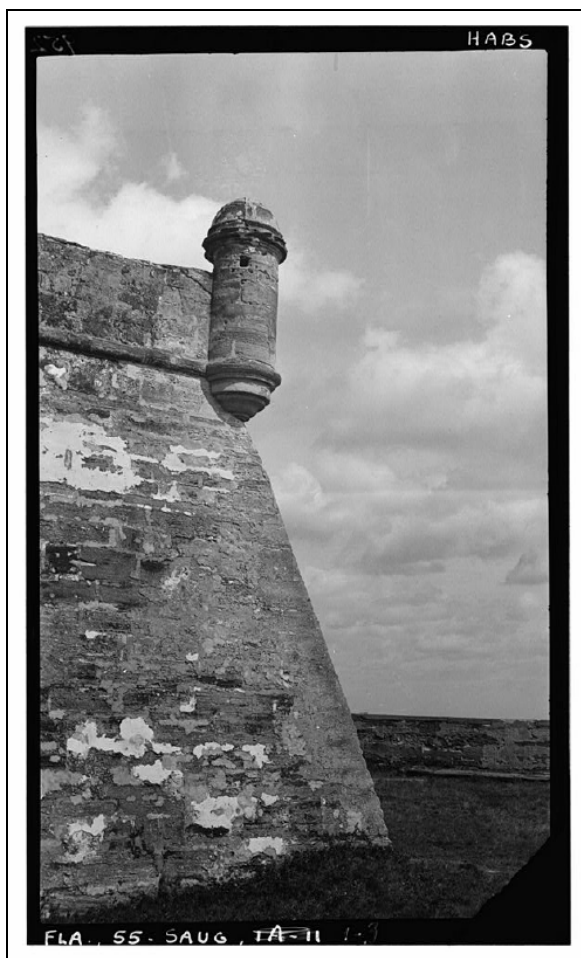
## Partnership Opportunities

**Discussion.** The planning team and many of the park's planning partners recognize the value of partnerships to fulfilling the mission of the park. Likewise, there are a number of interested public and private organizations willing to discuss areas of mutual concern and interest.

**Planning Guidance.** Potential partnerships should be identified and evaluated to determine both their viability and utility. Partnerships must be mutually beneficial to all participants. Benefits can extend well into the future, because participants often connect more strongly with the parks and commit themselves to long-term stewardship. The NPS will continue to welcome and actively seek partnerships with individuals, organizations, and others who share the Service's commitment to protecting park resources and values.<sup>6</sup>

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<sup>6</sup> Source: NPS Organic Act, 2001 NPS Management Policies



Exterior Coquina Walls and Turret, Circa 1936

### Commercial Tour Operators

**Discussion.** The park's prominence in St. Augustine presents an opportunity to those who might wish to use its resources for activities not related to the purpose and significance of the park. The purpose, significance, and mission of the park should always guide park managers when partnership opportunities are sought.

**Planning Guidance.** Pressures to use park resources for activities that lie outside of its mission will continue to grow. A great challenge of this plan is to develop management alternatives that allow a variety of uses while not adversely affecting the historic resources of the park.

### Other

Certain comments and concerns expressed during scoping are related to issues that are more appropriately addressed in other planning or implementation documents. Those comments are referenced in the following paragraph and correspond to the specific plan in which they should be addressed.

**Discussion.** Scoping comments from stakeholders and the public indicate interest in and support for the interpretive programs efforts at the park. Although specific interpretive program recommendations are beyond the scope of this plan, the management alternatives should be mindful of the value that visitors and staff place on interpretive and educational programs.

### MAJOR DECISION POINTS

The following decision points were developed after examination and analysis of all GMP/EIS-related planning issues identified during the scoping process. Decision points are statements that specify a range of possible future conditions in the park, based on public input. The decision points are used as the basis for developing the management alternatives.

- I. Should administrative uses of the fort such as the bookstore, ranger offices, and restrooms be removed in the interest of maintaining as authentic a historic scene as possible or should authenticity give way in some measure to practical matters related to convenience, efficiency, and human comfort? The idea of historical authenticity also raises the question of which period of occupation (Spanish, British, United States, or Confederacy) should the visual scene reflect or should park management attempt to make various

sections of the fort reflect each of these periods?

2. Should the parking lot at the south end of the glacis be removed or reduced in size to create a more accurate historic scene or should the parking lot remain to provide more convenient parking for visitors to the park as well as to historic St. Augustine?
3. Many National Park System areas have a stand-alone visitor center that provides parking, comfort facilities, and souvenir sales as well as an introduction to the park through a small museum, maps, and audio-visual presentations. At the park, the fort itself serves as a visitor center and this makes it difficult to provide necessary visitor services and simultaneously achieve some desired visitor experiences. Should there be a visitor center outside the fort and, if so, should it be developed within the current park boundaries or, should a new visitor center be developed off-site?
4. The Spanish builders of Castillo de San Marcos covered the soft coquina stone with plaster to protect it from the deterioration caused by wind, rain and the salty coastal air. There is no question that some sort of treatment will be needed to protect the coquina from further deterioration. The exact specifications of such a treatment are beyond the scope of the GMP/EIS but it is likely that whatever treatment is ultimately selected will change the appearance of the fort. The NPS is mandated by its establishing legislation to preserve unimpaired, the resources under its administration, for the enjoyment of present and future generations. How can park management meet this critical obligation without drastically changing the current appearance of the fort that

generations of visitors have grown to appreciate?

## **MAJOR VALUES POTENTIALLY AT STAKE**

The major park values potentially at stake are those features and experiences that could be changed as a result of decisions made through the planning process. They represent tradeoffs between competing values and form the basis for identifying impact topics in the environmental impact statement for this plan. The planning team examined the scoping comments and decision points to produce the following list of park resources and values that are at stake in the planning process.

- Historical appearance and integrity of the casemates in the fort.
- Ability of the interpretive staff to fully communicate the variety of stories and historical periods encompassed by the park.
- Visitor safety, comfort and convenience.
- Staff safety, comfort and convenience.
- Administrative efficiency.
- Integrity and historical appearance of the landscape (the fort green).
- Preservation and protection of archeological resources.
- Appearance of the fort's exterior walls.
- Preservation of the coquina structure from the decaying effects of local climate and time.
- Use of the fort green for recreation.



# Chapter 2 - Management Prescriptions and Alternatives, Including the NPS Preferred Alternative

*This section describes all of the management prescriptions that could be applied to The park under any of the alternatives. The management prescriptions define the desired resource conditions and visitor experiences, including the appropriate kinds and levels of management, use, and development. Descriptions are provided of each management alternative, using zoning to apply the management concepts to the park resources.*

## MANAGEMENT PRESCRIPTIONS

Management prescriptions are ways to integrate visitor use with resource management. They specify the desired resource conditions for different areas of the park and describe the desired visitor experiences based on resource management concerns and also on a concern to maintain a diversity of experiences for park visitors.

### Visitor Services Zone

**Description.** This zone is where visitors enter the park, park their cars, obtain tickets, and receive information about the site.

**Desired Resource Conditions.** Necessary visitor facilities in this zone would be placed as unobtrusively as possible in an appropriate setting. The area would be modified for visitor access and park operations in a way that aesthetically blends with the natural and cultural environment.

**Desired Visitor Experience.** This area would provide for a high level of visitor activity and administrative operations. In this zone visitors would enter the park and they would have opportunities to receive orientation and information, interact with park staff and other visitors, and experience and learn about the park's physical resources and interpretive themes.

**Appropriate Kinds and Levels of Development.** A visitor center with restrooms and drinking water fountains, a museum, a fee-collection facility, parking, and walkways are the types of facilities that could be found in this zone.

**Appropriate Kinds and Levels of Management Activities.** Management activities would include regular maintenance of both the structural and landscape elements in the zone, fee collection and law enforcement.

**Appropriate Kinds and Levels of Visitor Activities.** Visitor activities would include entering the park grounds, paying fees, and receiving orientation to the park's resources and programs.

### Park Services Zone

**Description.** This zone is where park staff conducts daily administrative and maintenance activities.

**Desired Resource Conditions.** Non-historic elements such as maintenance facilities and administrative offices would predominate in this type of zone. Minimizing the impacts of these facilities on the cultural resources of the national monument would be a high priority. A moderate level of native, non-invasive landscape plantings such as grass, shrubs, small trees, flowers and

ground covers could be introduced and maintained to improve the visual appeal of the structures.

***Desired Visitor Experience.*** Visitors would not typically enter this zone. Should they enter, either unintentionally or to obtain information or assistance, they might encounter maintenance or administrative buildings, equipment, machinery in operation, loud sounds, and park staff.

***Appropriate Kinds and Levels of Development.*** The facilities that would be found in this zone could include maintenance buildings, vehicle storage facilities, park offices, parking areas, utilities, and artifact storage buildings.

***Appropriate Kinds and Levels of Management Activities.*** Moderate to intensive management in this zone would be directed toward maintenance of its buildings and grounds as well as staging and preparation for maintenance and resource protection activities in other zones.

***Appropriate Kinds and Levels of Visitor Activities.*** Visitors would not typically enter this zone except to obtain information or assistance.

## **Historic Resource Zone**

***Description.*** The principal cultural resources of the park would be found in this zone.

***Desired Resource Conditions.*** The historic character represents the period of significance as accurately as possible. Only very minor changes to the historic scene would be necessary to insure basic visitor safety and resource protection.

***Desired Visitor Experience.*** Visitors would experience the historic quality and character defining features of the resource.

There would be abundant opportunities for learning the history and significance of the architecture of the structure, events and people associated with Castillo de San Marcos.

***Appropriate Kinds and Levels of Development.*** The development in this zone would be limited to signage to enhance interpretation of the historic resources and promote visitor safety.

***Appropriate Kinds and Levels of Management Activities.*** Moderate to intensive management in this zone would be directed toward the stabilization and preservation of historic resources and the prevention of deterioration.

***Appropriate Kinds and Levels of Visitor Activities.*** Visitor activities would include viewing the historic structures, artifacts, and photography and participating in interpretive programs and passive leisure use of park grounds. Fee collection would also be an appropriate activity in this zone. Any new or relocated fee collection structure would have to be approved in accordance with Section 106 of the NHPA.

	VISITOR SERVICES ZONE	PARK SERVICES ZONE	HISTORIC RESOURCE ZONE
<b>DESCRIPTION</b>	The zone where visitors enter the park, park their cars, pay fees, and obtain information about the park.	The zone where administrative offices and maintenance facilities are found.	The zone where the principal cultural resources of the site are found.
<b>DESIRED RESOURCE CONDITIONS</b>	<ul style="list-style-type: none"> <li>Facilities placed unobtrusively</li> <li>Modified for visitor access</li> <li>Blends with natural &amp; cultural environment</li> </ul>	<ul style="list-style-type: none"> <li>Non-historic buildings and facilities could be found here</li> <li>Modification of the natural environment for administrative purposes would be tolerated</li> <li>Native plantings could be used to screen the area from the principal cultural resources</li> </ul>	<ul style="list-style-type: none"> <li>Reflects the period of significance as accurately as possible</li> <li>Minimal changes for visitor safety and resource protection</li> </ul>
<b>DESIRED VISITOR EXPERIENCE</b>	<ul style="list-style-type: none"> <li>Interact with park staff &amp; other visitors</li> <li>Pay fees</li> <li>Obtain information about resources and programs</li> </ul>	<ul style="list-style-type: none"> <li>Enter this area only for information or assistance</li> <li>Would encounter vehicles, park staff, machinery in operation</li> </ul>	<ul style="list-style-type: none"> <li>Ample opportunities for exploring the fort and surrounding landscape</li> <li>Individual or group experiences possible</li> <li>Discover importance of people and events associated with the site</li> </ul>
<b>LEVELS OF DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>VC with restrooms &amp; drinking water</li> <li>Museum</li> <li>Fee-collection facility</li> <li>Parking &amp; walkways</li> </ul>	<ul style="list-style-type: none"> <li>Administrative &amp; maintenance buildings</li> <li>Parking areas</li> <li>Vehicle storage</li> <li>Utilities</li> </ul>	<ul style="list-style-type: none"> <li>Signage to enhance interpretation and visitor safety</li> </ul>
<b>MANAGEMENT ACTIVITIES</b>	<ul style="list-style-type: none"> <li>Maintenance</li> <li>Fee collection</li> <li>Law enforcement</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance of buildings and grounds</li> <li>Staging of maintenance and resource protection activities</li> </ul>	<ul style="list-style-type: none"> <li>Stabilization</li> <li>Preservation</li> <li>Maintenance</li> <li>Interpretation</li> <li>Fee Collection</li> </ul>
<b>VISITOR ACTIVITIES</b>	<ul style="list-style-type: none"> <li>Entering park grounds</li> <li>Paying fees</li> <li>Obtaining information</li> </ul>	<ul style="list-style-type: none"> <li>Seeking information or assistance</li> </ul>	<ul style="list-style-type: none"> <li>Viewing historic structures and artifacts</li> <li>Photography</li> <li>Participating in interpretive programs</li> <li>Passive leisure pursuits on park grounds</li> </ul>

**MANAGEMENT PRESCRIPTIONS MATRIX**

## ALTERNATIVE MANAGEMENT CONCEPTS

Three potential management strategies (in addition to the No-Action Alternative) are presented here. They offer a variety of strategies for re-establishing a more historic appearance to some of the fort's casemates (interior rooms), the glacis (the sloping grassy area nearest the fort), and the remainder of the landscape.\* Alternatives B and C also respond to Public Law 108-480, signed by President George W. Bush on December 23, 2004. The law, subject to the availability of appropriations and priorities of the NPS's 5-year line-item construction program, authorizes the NPS to design and construct a visitor center for the park in accordance with the preferred alternative of the final GMP/EIS. It is important to note, however, that, primarily due to the high long-term costs associated with staffing, operating, and maintaining a new visitor center, the NPS preferred alternative in this draft GMP/EIS (Alternative D) does not include a visitor center.

A visitor center was recommended in the park's last Master Plan, approved in February of 1974. While that plan did not recommend a facility wholly owned and operated by the NPS, it did highlight the importance of a partnership with other preservation groups to produce a "unified interpretation of the Saint Augustine/Castillo community" that would be "coherently presented to visitors".

Furthermore, the plan recommended that the visitor center be easily accessible to visitors and within easy reach of the park and the downtown historic area. Alternatives B and C both respond to that recommendation.

It is important to note however, that if a new visitor center is constructed without a commensurate increase in staffing and operating expenses, there could be negative

impacts on existing park assets. Impacts are discussed in Chapter 4, Environmental Consequences.

\*Throughout this document the term "landscape" is used in the colloquial sense meaning generally the grounds outside the historic and non-historic structures on the site. The term should not be confused with "cultural landscape" which in NPS idiom means "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein associated with a historic event, activity, or person, or that exhibits other cultural or aesthetic values". The "cultural landscape" of the park has not been fully documented by completion of a Cultural Landscape Report (CLR). It is a principal recommendation of this plan that any changes, restoration, or other treatments applied to this landscape should occur only pursuant to the completion of the CLR, coordination with the Florida State Historic Preservation Officer and compliance with Section 106 of the NHPA.

## ALTERNATIVE A

### No-Action Alternative

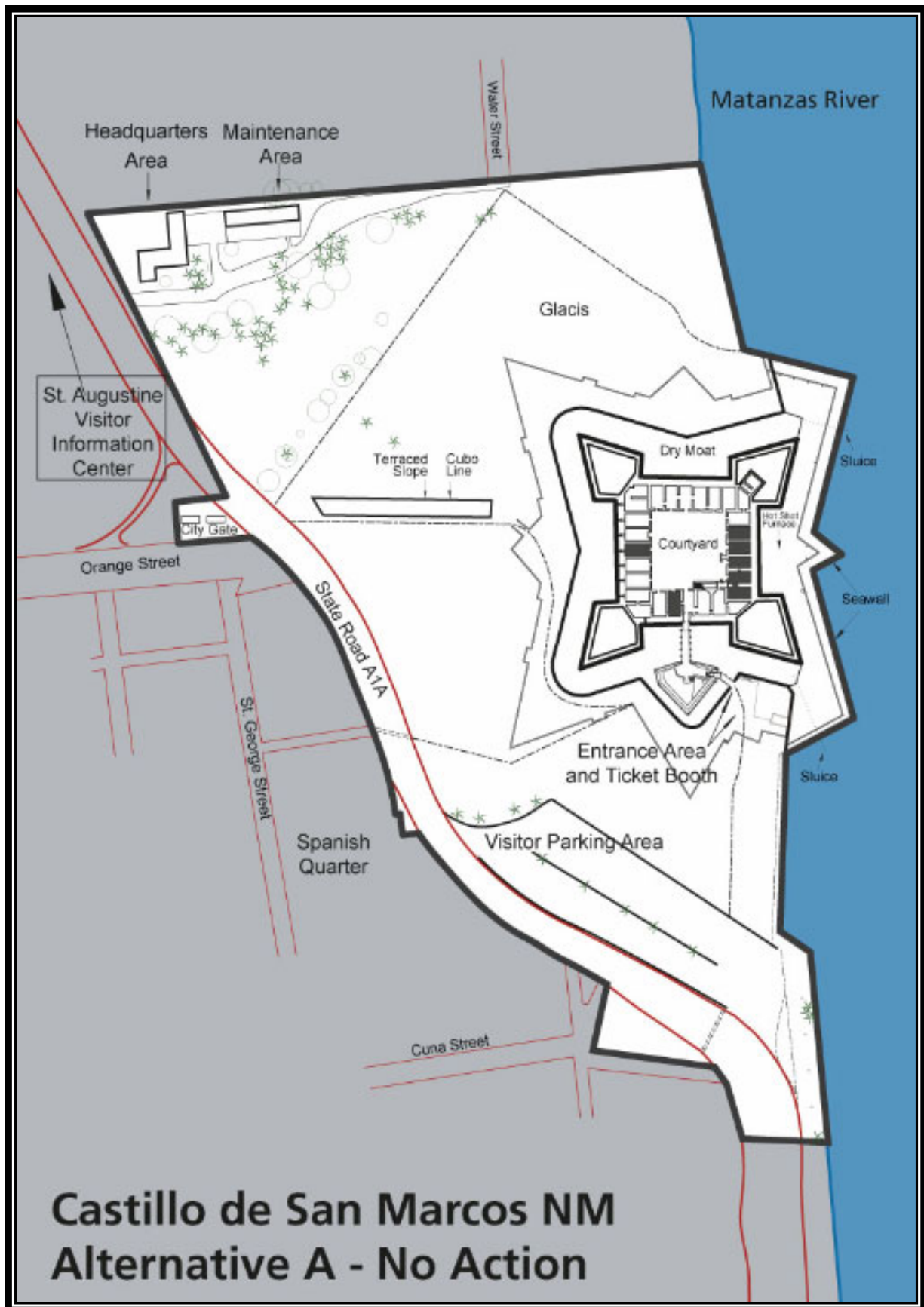
**General Theme.** This alternative, also referred to as the No-Action Alternative, continues current management policies and practices. All non-historic uses of the fort's casemates would remain in the fort and there would be no physical changes to the existing landscape or visitor facilities. Relocation of the ticket booth to a site with less visual impact on the historic scene would be possible under this alternative. There would be no new visitor center constructed under this alternative.

**Visitor Experience.** Visitors would continue to access the fort either by private vehicle using the large visitor parking lot, by St. Augustine tourist trains, by foot along the waterfront, along Highway A1A from the north, or from the Spanish Quarter of the historic district. There would be no visitor center, but a variety of interpretive programs would continue to take place mostly inside the fort and most visitor information would be provided inside the fort.

**Resource Conditions.** The landscape, parking lot, and interior of the fort would be maintained in their current condition. Under this and all the alternatives some treatment of the exterior surface of the Castillo de San Marcos walls will be allowed, to prevent unacceptable deterioration and impairment of the historic walls. The exact nature of this treatment is beyond the scope of this plan, but will be determined with the full involvement of the State Historic Preservation Officer (SHPO) and in compliance with all applicable laws and policies.

In all plan alternatives some modern additions to the fort's casemates would remain in place, including the restrooms,

the bookstore, and a utilities room. In alternatives B and C the modern additions to two and three of the casemates respectively would be removed and any repairs or restorations made to the resulting uncovered coquina walls would be accomplished after appropriate consultation with the SHPO of Florida and compliance with the provisions of Section 106 of the NHPA. The impact, if any, on the interior walls of the fort from continued use of its casemates for public comfort and administrative uses is unknown at this time. Therefore, management of the National Monument should seek funding for a team of experts to visit the site and through appropriate observation, analysis and testing, determine whether these modern additions are having negative impacts on the walls and if so, recommend strategies and techniques for mitigating them.



## ALTERNATIVE B

**General Theme.** This alternative would implement a phased enhancement of the historic character of the fort and the landscape by removing certain non-historic elements while providing for visitor comfort and increased services. The first phase would remove approximately 2/3 of the existing paved parking lot. Subsequently, in the second phase of the implementation of the alternative, the park would seek funding through the NPS 5-year line-item construction program to build the visitor center authorized by Public Law 108-480 at the north end of the site and would relocate 3 ranger offices from the fort to that facility.

**Visitor Experience.** The emphasis would be on living history. The first Spanish period would be the primary interpretive theme. Secondary themes would include competition between nations for land in the New World, military engineering and weaponry, the British period, and Indian incarcerations.

The visitor would have extensive opportunities to experience the most authentic feeling of being in the historical period through:

- The removal of modern intrusions from some of the fort's casemates and landscape;
- Living history, costumed interpretation, period crafts, and demonstrations.

In addition, the visitor experience would be substantially enhanced through exhibits, videos, demonstrations, and interpretive talks that would be found in the new visitor center to be constructed at the north end of the site.

**Resource Conditions.** Through removal of the visitor parking lot\*, contouring and grassing of the site to match conditions of the existing glacis (the grassy slope closest to the fort walls) and fort green, and removal of administrative functions from three of the fort's casemates, NPS would attempt to establish a more historic look and feel to the area.

The view of the fort at the entrance would be improved by removing the ticket booth and relocating the ticket sales function to a compatible site in accordance with Section 106 of the NHPA.

The sidewalk along Highway A1A would be widened and benches and wayside exhibits would be added to accommodate expected numbers of visitors and to enhance the experience of visitors walking from the new visitor center at the north end of the site to the fort entrance.

### ***Administrative Uses of the Fort.***

Administrative functions would be removed from three of the fort's casemates. Visitor restrooms and an audio/visual room would remain for the comfort and convenience of visitors and a utilities room would remain for operational purposes. The Eastern National bookstore would also remain in the fort but design of the space could be modified to maximize exposure of the historic fabric. Relocation of the bookstore to a more appropriate casemate may also be considered. All other administrative uses of casemates such as equipment and supplies storage would also remain under this alternative. The casemates from which ranger offices and volunteer facilities are removed would be returned to a more historic appearance.

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\* An adequate amount of paved area would be retained for handicapped designated parking, emergency vehicle access, and drop-off area for the St. Augustine tourist trains.

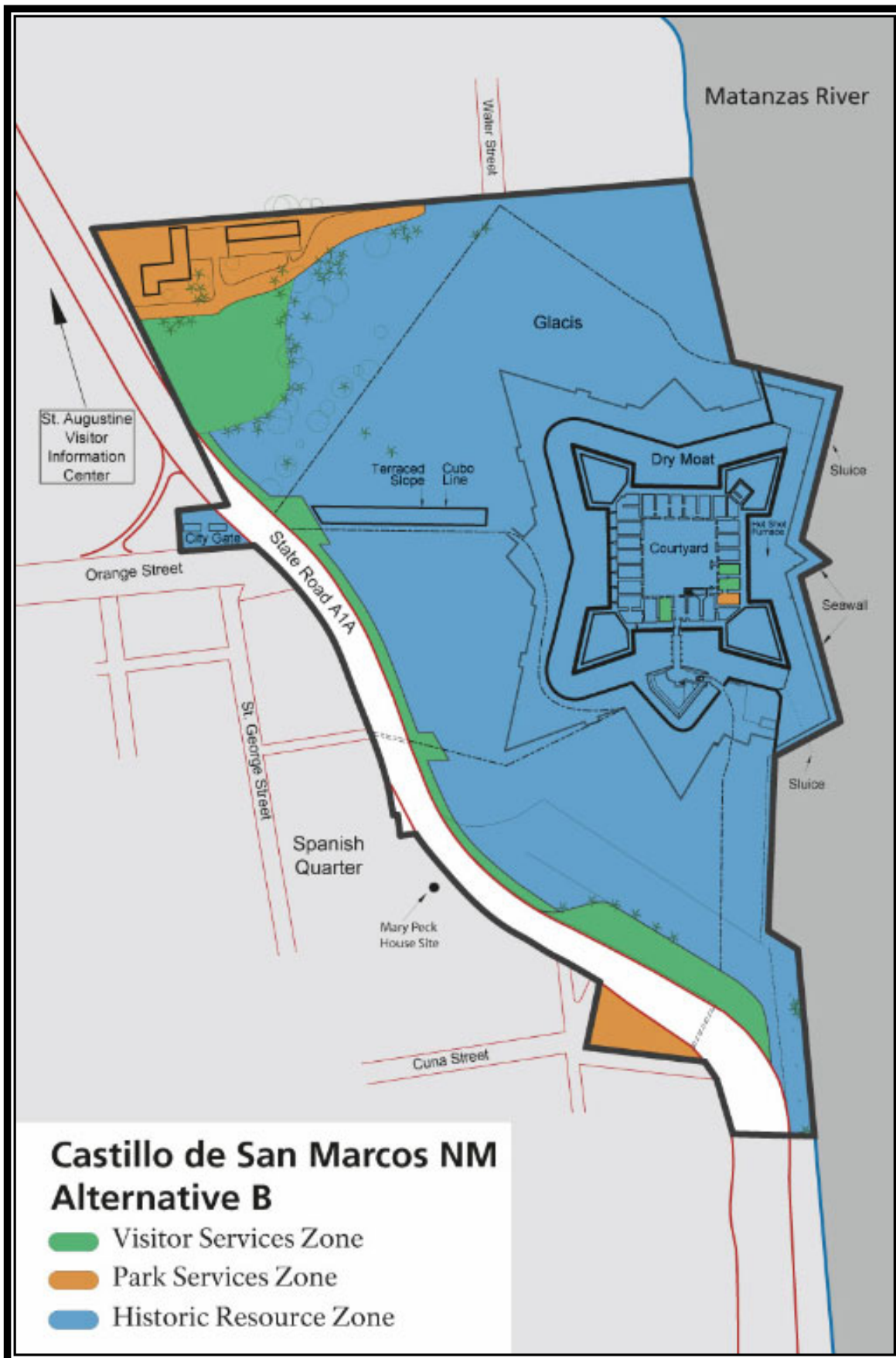
***Visitor Center.*** A new visitor center would be developed at the north end of the site. Displays, films, brochures, and programs would connect the military history of the Castillo de San Marcos to the civilian history portrayed in the Spanish Quarter Museum. The design of the visitor center would conform to the most current policies and concepts with regard to sustainability.

***Parking.*** Approximately 2/3 of the visitor parking lot would be removed and the area would be contoured and grassed to match the existing fort green and glacis. The minimum parking necessary to provide for accessible spaces, St. Augustine trailer train pass through and drop-off, service vehicles and emergency vehicle access would remain. Additional parking will be available in a new city parking garage now under construction behind the St. Augustine Visitor Information Center.

***Maintenance Area.*** The maintenance function, facilities, and equipment would remain in the current location. Some landscaping and other screening elements could be installed to insulate the new visitor center from the sounds and activities of the maintenance compound.

***Administrative Headquarters.*** The existing administrative headquarters would remain in its current location.





## ALTERNATIVE C

**General Theme.** This alternative, in phase 1, seeks to replace more of the parking lot with a graded fort green and glaxis to a more historic look than in Alternative B. Like Alternative B, this alternative retains the administrative, maintenance, and facilities management functions in their current locations while, in phase 2, it returns 2 of the fort's casemates to their previous condition and locates the visitor center authorized by Public Law 108-480 in a very convenient off-site location. The administrative functions removed from the fort would be relocated to this new facility.

**Visitor Experience.** The visitor would have many opportunities to experience an authentic feeling of being in the historical period through:

- Substantial expansion of the fort green and glaxis and removal of modern intrusions from two of the fort's casemates.
- Living history, costumed interpretation, period crafts and demonstrations.

In addition, the visitor experience would be substantially enhanced through exhibits, videos, demonstrations, and interpretive talks that would be found in the new visitor center which would be located off-site.

**Resource Conditions.** Some non-historic administrative functions (ranger offices) would be removed from the fort and those two casemates would be returned to their previous condition. The restrooms, Eastern National Bookstore, and other administrative uses of casemates would remain in the fort.

- Administrative offices and the maintenance compound would remain

in their current locations at the north end of the site.

- The glaxis and fort green would be expanded to a greater extent than in all the other alternatives by removing a large portion of the existing visitor parking lot and contouring and grassing the area to match existing conditions on the remainder of the site.
- The view of the fort at the entrance would be enhanced by removing the ticket booth and relocating the ticket sales function to a compatible site in accordance with Section 106 of the NHPA.
- The sidewalk from the north end of the site to the south end would be widened slightly to improve the safety of an anticipated increase in visitors walking from the new city parking structure to the fort entrance.

**Administrative Uses of the Fort.** The ranger offices would be removed from two casemates in the fort and relocated to a new visitor center to be located off site. The original coquina walls of these casemates would be repaired as necessary.

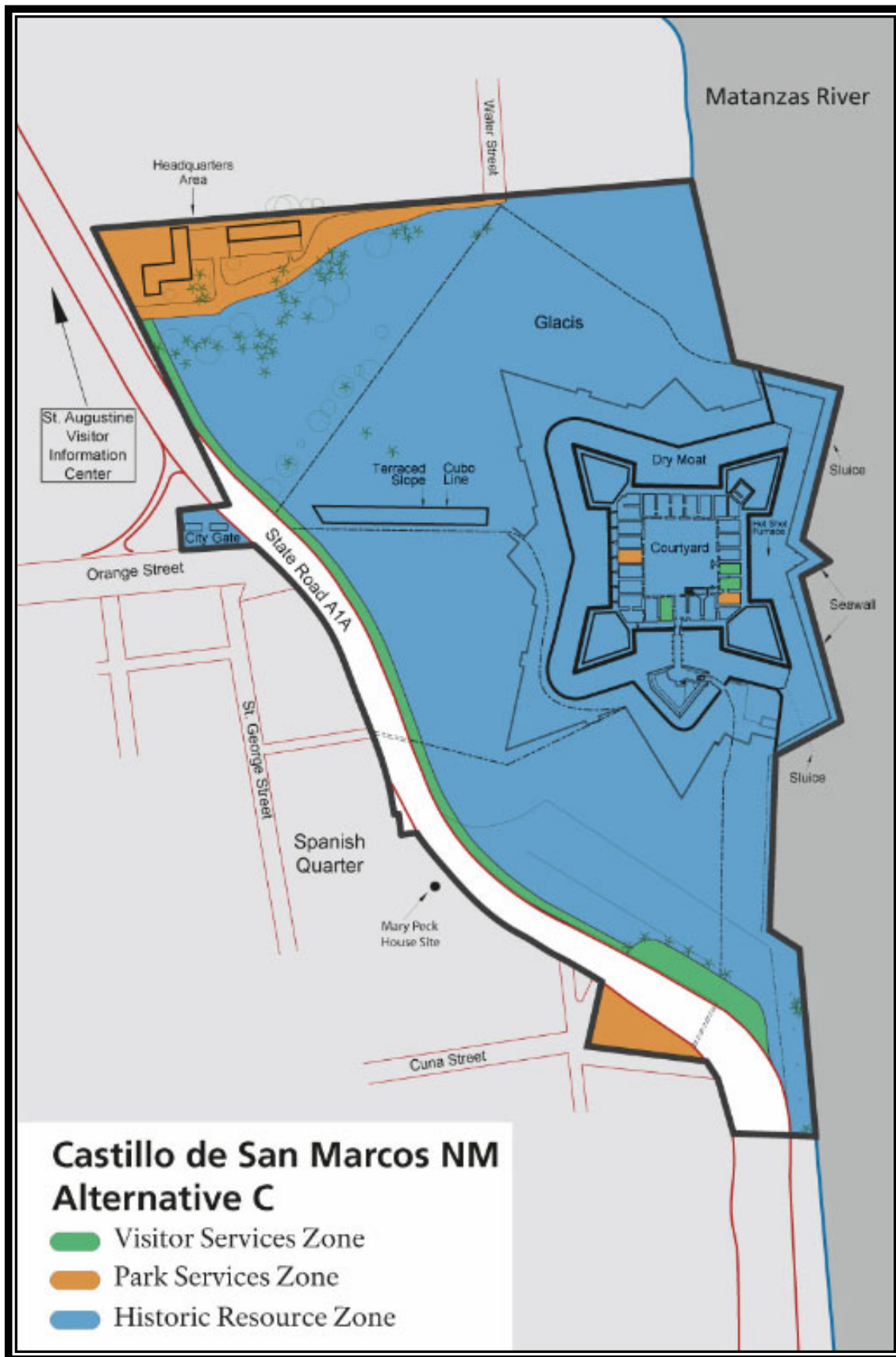
**Visitor Center.** A new, full-service visitor center would be located in the Spanish Quarter of St. Augustine. One possible location would be vacant land directly across State Road A1A from the north entrance to the current visitor parking lot. Part of this land, currently owned by the City of St. Augustine, is the former site of the Mary Peck<sup>1</sup> house and part is land owned by the State of Florida. Public Law

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<sup>1</sup> The long time home of St. Augustine native, Mary LaVerne Peck, the two-story house was built between 1904 and 1910 and remained a residence throughout its occupancy. The house had been vacant since Peck's death in 1996. It was relocated to property owned by Historic Tours of America on November 18, 2004.

108-480 provides the authority for expanding the park boundary, acquiring property by donation, purchase or exchange, and constructing the visitor center. However, provisions of the Federal Land and Water Conservation Fund Act, from which the NPS obtains land acquisition monies, require that land owned by state or local governments be obtained only by donation. The design of the visitor center would conform to the most current policies and concepts with regard to sustainability.

***Parking.*** Approximately  $\frac{3}{4}$  of the visitor parking lot would be removed and the area would be contoured and grassed to match the existing fort green and glacis. There would be some paved area retained for accessible parking spaces. Additional parking will be available in the City's new parking garage currently under construction behind its Visitor Information Center. The St. Augustine tourist trains would drop off visitors at the new visitor center off-site.



## **ALTERNATIVE D**

### **Preferred Alternative**

Alternative D has been identified as the NPS preferred alternative for the Draft GMP/EIS. The process used to select the preferred alternative is known as Choosing by Advantages (CBA). CBA enhances objective decision making by establishing relative degrees of importance to the differences between alternatives rather than by assigning weights to the various rating factors. A more detailed description of the CBA process can be found in Appendix D.

**General Theme.** This alternative would focus on preservation of the fort by removing ranger offices from three casemates and relocating them to a new structure in the Park Services Zone. The casemate walls would be repaired as needed and returned to their previous condition. There would be very little change from existing conditions with respect to the visitor parking lot or the landscape. The ticket booth and sales function would be relocated away from the fort entrance to a site compatible with the NHPA.

**Visitor Experience.** The visitor would have ample opportunities to learn about both the military history of the Castillo de San Marcos and the civilian experience in the Spanish Quarter. These opportunities would occur inside the fort and on the landscape through demonstrations, exhibits, and interpretive talks.

**Resource Conditions.** The ticket booth and sales function would be relocated away from the fort entrance to a site compatible with the NHPA. There would be no other significant changes to the landscape or to the visitor parking lot.

**Parking.** There would be no change from current conditions. The existing parking lot would remain. Additional parking would be available in a new city parking garage to be constructed behind the St. Augustine Visitor Information Center.



## **COST COMPARISONS**

Cost figures in the following table are presented for the purpose of comparing the GMP/EIS alternative management concepts only. With the exception of the first and last lines in the first section of the table (Basic ONPS Operating Budget for Fiscal Year 2005 and Parking Lot Revenue Lost) all cost figures shown are “Class C” estimates. Class C estimates are generally prepared in advance of actual design work and are typically based on the unit cost of a similar facility. The numbers in the table represent an indication or characterization of potential capital and annual operating expenses for each plan alternative. The bottom row in the table represents all capital and operating expenses over a 30-year period for the entire park. The 30-year period was chosen because it represents the useful life cycle of the new visitor center which is the largest single new cost in any of the action alternatives.

The construction cost for the proposed visitor center was calculated using the NPS Facility Calculator Software with basic parameters of annual visitation, space requirements and other factors provided by management and staff of the National Monument. Likewise, the operations and maintenance costs for the visitor center were calculated using a model developed by a consultant for an existing NPS visitor center at Herbert Hoover National Historic Site in Iowa.

The final line of the table shows that the Alternatives B and C are very close in cost when all capital and operating expenses for the entire National Monument are shown for the expected 30-year useful life cycle of the visitor center. Alternative D has a life cycle cost approximately \$14 million less than B and C due to the absence of a new visitor center in it. However, the cost table

does not show any offsetting economic benefits that might accrue to both the National Monument and the City of St. Augustine as a result of the construction of a visitor center. For example, a new visitor center in the Spanish Quarter of St. Augustine would add an additional attraction to the mix of shops, museums, and food venues already there. Such a facility could cause visitors to spend more time in the area and with more time comes greater expenditures on food, souvenirs, and lodging.



<b>Total Cost (Capital &amp; Operating) of Alternatives</b>				
<b>Cost Item</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
<b>Basic ONPS Operating Budget for Fiscal Year 2005</b>	\$1,483,000.00	\$1,483,000.00	\$1,483,000.00	\$1,483,000.00
<b>Visitor Center Construction<sup>1</sup></b>	\$0.00	\$4,550,000.00	\$4,550,000.00	\$0.00
<b>Annual Operating Costs for VC<sup>2</sup></b>	\$0.00	\$299,000.00	\$299,000.00	\$0.00
<b>New administrative offices</b>	\$0.00	\$0.00	\$0.00	\$745,200.00
<b>Remove Non-Historic Casemate Structures and Furnishings</b>	\$0.00	\$12,000.00	\$6,000.00	\$12,000.00
<b>Remove Portions of Visitor Parking Lot and Grade Site to Match Existing Contours</b>	\$0.00	\$250,000.00	\$250,000.00	\$0.00
<b>Annual Loss of Parking Revenue<sup>3</sup></b>	\$0.00	\$50,000.00	\$50,000.00	\$0.00
<b>Total One Time Costs<sup>1</sup></b>	\$0.00	\$4,812,000.00	\$4,806,000.00	\$757,200.00
<b>Total Annual Costs</b>	\$1,483,000.00	\$1,832,000.00	\$1,832,000.00	\$1,483,000.00
<b>Total 30-year Costs</b>	\$44,490,000.00	\$59,772,000.00	\$59,766,000.00	\$45,247,200.00
<sup>1</sup> If land cannot be obtained by donation in Alternatives C & D, then acquisition costs would have to be added to the total cost of the alternative. Current land costs in the historic district of St. Augustine would result in an additional \$1.0 - \$1.5 million. Current law prohibits the NPS from purchasing land from state or local governments. <sup>2</sup> Includes staffing, custodial, recurring and preventive maintenance, and utilities <sup>3</sup> Approximately \$50,000 per year. Total 30-year cost would be \$1,500,000.				

## POTENTIAL BOUNDARY ADJUSTMENT

Public Law 95-625, the 1978 National Parks and Recreation Act, requires, among other things, that all GMP/EISs address indications of potential boundary modifications. In that regard, the owners of a 1-acre parcel adjacent to the northeast boundary of the park and containing a 5,600 square foot single family residence constructed in 1906, have approached their representative in Congress about selling their property to NPS. The Congressman has expressed interest in seeing the NPS own the property.

## ALTERNATIVES CONSIDERED BUT REJECTED

The planning team developed and considered an alternative that would have placed a full service visitor center in the current visitor parking lot. This idea was rejected because numerous public comments pointed out that a substantial structure in the parking lot would adversely affect the impressive sight of the fort that one gets either walking up to the site or driving along A1A from the south and the visual impact it may have looking from the gun deck.

Adaptively renovating the current headquarters building for use as both an administrative facility and visitor center was also considered. This idea was rejected for the following reasons:



- The building has recently been repaired and renovated including a new roof, a new conference room adapted from former artifact storage space, and new air conditioning.
- The building is a Mission 66 structure nearing fifty years of age potentially making it eligible for listing on the National Register of Historic Places. Such designation could increase the cost and complexity of adapting it for the proposed use.
- To adapt the building for two functions would involve either adding a second story or increasing the structure's footprint. Either of these options would likely cost substantially more than building a new facility.

Another alternative would have placed a somewhat smaller visitor contact station within the visitor parking lot. Although the cost of this facility would have been less than the full service visitor center, its visual impact would not have been substantially less and therefore this alternative was also rejected for reasons cited previously.

Another alternative would have removed all modern uses from the fort's casemates and completely removed all parking from the south end of the site. The rationale for this alternative was to return the site to a historic appearance to the maximum possible degree. This alternative was rejected because of numerous public comments related to retaining restrooms and parking for disabled or elderly visitors.

#### **MITIGATIVE MEASURES COMMON TO ALL ALTERNATIVES**

Congress charged the NPS with managing the lands under its stewardship "in such manner and by such means as will leave them unimpaired for the enjoyment of

future generations" (NPS Organic Act, 16 USC 1). As a result, the NPS routinely evaluates and implements mitigation whenever conditions occur that could adversely affect the sustainability of national park system resources.

To ensure that implementation of the action alternatives protects natural and cultural resources and the quality of the visitor experience, mitigative measures would be applied to actions proposed in this plan. The NPS would prepare appropriate environmental review (i.e., those required by NEPA, NHPA, and other relevant legislation) for these future actions. As part of the environmental review, the NPS would avoid, minimize, and mitigate adverse impacts when practicable. The implementation of a compliance monitoring program could be considered to stay within the parameters of NEPA and NHPA compliance documents, U.S. Army Corps of Engineers Section 404 permits, etc. The compliance-monitoring program would oversee these mitigative measures and would include reporting protocols.

The following mitigation measures and best management practices would be applied to avoid or minimize potential impacts from implementation of the alternatives. These measures would apply to all alternatives.

#### **Cultural Resources**

The NPS would preserve and protect, to the greatest extent possible, the cultural resources of the park. Specific mitigation measures include the following:

- Continue to develop inventories for and oversee research about archeological and historical resources to better understand and manage the resources. Continue to manage cultural resources and collections following federal regulations and NPS guidelines.

Inventory the park's collection and keep in a manner that would meet NPS curatorial standards.

- Avoid adverse impacts through the use of the *Secretary of the Interior's Standards for Archeology and Historic Preservation*. If adverse impacts could not be avoided, mitigate these impacts through a consultation process with all interested parties.
- Inventory all unsurveyed areas in the park for archeological, historical, and ethnographic resources as well as cultural and ethnographic landscapes.
- Document cultural landscapes in the park and identify appropriate treatments.
- Conduct additional background research, resource inventory, and national register evaluation where information about the location and significance of cultural resources is lacking. Incorporate the results of these efforts into site-specific planning and compliance documents.
- Mitigation measures include documentation according to standards of the Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) as defined in the Re-engineering Proposal (October 1, 1997). The level of this documentation, which includes photography, archeological data recovery, and/or a narrative history, would depend on significance (national, state, or local) and 70 individual attributes (an individually significant structure, individual elements of a cultural landscape, etc.) and be determined in consultation with the SHPO. In addition, the historical

alteration of the human environment and reasons for that alteration would be interpreted to visitors.

- Wherever possible, locate projects and facilities in previously disturbed or existing developed areas. Design facilities to avoid known or suspected cultural resources.
- Whenever possible, modify project design features to avoid effects on cultural resources. New developments would be relatively limited and would be located on sites that blend with cultural landscapes and not adjacent to ethnographic resources. If necessary, use vegetative screening as appropriate to minimize impacts on cultural landscapes and ethnographic resources.
- Strictly adhere to NPS standards and guidelines on the display and care of artifacts. This would include artifacts used in exhibits in the visitor center. Irreplaceable items would be kept above the 500-year floodplain. This means that no irreplaceable items would be kept at the park.

### ***Landscape***

Mitigative measures are designed to minimize visual intrusions. These include the following:

- Design, site, and construct facilities to avoid or minimize adverse effects on natural and cultural resources and visual intrusion into the natural and/or cultural landscape.
- Provide vegetative screening, where appropriate.

## Natural Resources

### *Water Resources*

- To prevent water pollution during construction, use erosion control measures, minimize discharge to water bodies, and regularly inspect construction equipment for leaks of petroleum and other chemicals.

### Visitor Experience

- Implement an interpretation and education program. Continue directional signs and education programs to promote visitor understanding.
- Conduct an accessibility study to understand barriers to programs and facilities. Based on this study, implement a strategy to provide the maximum level of accessibility.

### Sustainable Design and Aesthetics

- Projects would avoid or minimize adverse impacts on natural and cultural resources. Development projects (e.g., buildings, facilities, utilities, roads, bridges, trails) or reconstruction projects (e.g., road reconstruction, building rehabilitation, utility upgrades) would be designed to work in harmony with the surroundings, particularly in historic districts. Projects would reduce, minimize, or eliminate air and water nonpoint-source pollution. Projects would be sustainable whenever practicable, by recycling and reusing materials, by minimizing the amount of materials, and by minimizing energy consumption during the project and throughout the lifespan of the project.

## CONSISTENCY WITH SECTIONS 101(B) AND 102(1) OF THE NATIONAL ENVIRONMENTAL POLICY ACT

The NPS requirements for implementing NEPA include an analysis of how each alternative meets or achieves the purposes of NEPA, as stated in sections 101(b) and 102(1). Each alternative analyzed in a NEPA document must be assessed as to how it meets the following purposes:

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, and environment which supports diversity, and variety of individual choices;
5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Council on Environmental Quality's Regulation 1500.2 establishes policy for

federal agencies' implementation of NEPA. Federal agencies shall, to the fullest extent possible, interpret and administer the policies, regulations, and public laws of the United States in accordance with the policies set forth in NEPA (sections 101(b) and 102(1)).

The differences between the alternatives regarding purpose 1 are not appreciable. Purpose 1 is satisfied by all of the alternatives because Castillo de San Marcos National Monument is already a unit of the national park system and the NPS would continue to fulfill its responsibilities to protect this area for future generations. Purpose 6 also was determined to be not applicable to this study as these programs are outside the scope of a GMP/EIS.

Alternative A partially meets the purposes because it does preserve the historic resources of the park. Alternative A does not, however, meet all of the criteria. The retention of the visitor parking lot, ticket booth, and non-historic administrative uses of the fort and not addressing the need for a visitor center will continue to have impacts on visitor experience, landscapes, and the fort (see the "Environmental Consequences" chapter). Purposes 2, 3, 4, and 5 are not fully addressed by Alternative A.

Alternative B meets the purposes overall, to some degree, and only partially meets purpose two with respect to assuring aesthetically and culturally pleasing surrounding. A visitor center is proposed to be constructed on the fort green just south of the existing headquarters. The visitor center could afford visual intrusions to the landscape. This alternative does assure for safe surroundings by greatly reducing the size of the visitor parking lot and widening sidewalks along the road. The visitor center would provide the opportunity for an orientation to the park possibly resulting in

a safer visit. The orientation would also serve to educate visitors on how they can help preserve the resources. Reduction of the visitor parking lot will enhance the views of the landscape assuring an aesthetically and culturally pleasing surrounding. Some non-historic administrative functions will be removed from the fort helping to preserve it.

Alternative C meets all six purposes overall. Purposes two and three are slightly compromised with the proposal to build a visitor center across the street from the park in the Spanish Quarter. This location would require visitors to cross the street to visit the park and may impact safety. There are traffic lights and walk signals at two locations near the proposed visitor center that would help to alleviate the safety issue. This alternative does enhance safe surroundings by greatly reducing the size of the visitor parking lot and widening sidewalks along the road. The visitor center would provide the opportunity for an orientation to the park possibly resulting in a safer visit. The orientation would also serve to educate visitors on how they can help preserve the resources. Reduction of the visitor parking lot will enhance the views of the landscape assuring an aesthetically and culturally pleasing surrounding. Some non-historic administrative functions will be removed from the fort helping to preserve it.

Alternative D meets the purposes overall, to some degree, and only partially meets purposes two and three with respect to assuring aesthetically and culturally pleasing surrounding and safety. Purpose two is compromised by retaining the visitor parking lot which is a visual intrusion into the landscape and is a concern for safety. Some non-historic administrative functions will be removed from the fort helping to preserve it. Not addressing the need for a visitor center will continue to have impacts

on visitor experience, opportunities for extensive orientation to the park that could possibly result in a safer visit, and visitor orientation that would serve to educate visitors on how they can help preserve the resources.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The NPS is required to identify the environmentally preferred alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Department Manual (516 DM 4.10) and the CEQ's Forty Questions, defines the environmentally preferred alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (Section 101(b)) (516 DM 4.10). The CEQ's Forty Questions (Q6a) further clarifies the identification of the environmentally preferred alternative stating, "simply put, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and native processes."

Within the boundary of the park there are no common natural resources as defined by NPS policies. The 20-acre site has been modified throughout its history by human activity. There are no free-flowing streams, wetlands, forests, or other naturally occurring ecosystems here. Therefore, management activities with respect to the biological environment within the park boundaries are limited to those with potential impacts on water quality and floodplains.

Alternative C best protects, preserves, and enhances historic and cultural processes by greatly reducing the area of the existing

paved visitor parking lot resulting in much less visual intrusion on the landscape of the monument and provides the opportunity to restore the cultural scene. New construction in this alternative is proposed outside of the current boundary most likely on a previously disturbed site, therefore having a negligible contribution toward visual intrusion on the park landscape negligible impacts to the biological environment. It would, however, have the potential to disturb the physical environment of its nearby surroundings. The ticket booth will be removed from the entrance to the fort and some non-historic administrative uses of the fort will be removed helping to enhance the aesthetics and protect the fabric of the fort, respectively.

## ENVIRONMENTAL CONSEQUENCES TABLE

Consequences On...	Alternative A No-Action	Alternative B	Alternative C (Environmentally Preferred)	Alternative D (Agency Preferred)
Natural Resources				
<i>Water Quality</i>	The water quality analysis identified possible existing effects on water quality to Matanzas Bay (adjacent to the park boundary) associated with one existing parking area. Current conditions with the parking lot constructed of impervious materials and vehicles in the parking lot causes <i>negligible adverse</i> impacts on the water quality of Matanzas Bay.	This alternative would result in <i>negligible adverse long-term</i> impacts to water quality to Matanzas Bay due to the offsetting impacts of reducing and adding areas of impermeable surfaces.	This alternative would result in <i>negligible beneficial long-term</i> impacts to water quality to Matanzas Bay due to reducing the area of impermeable surfaces and therefore reducing the amount of runoff.	This alternative would result in <i>negligible adverse long-term</i> impacts to water quality to Matanzas Bay due to the area of impermeable surfaces and the possibility of vehicle pollutants as well as increased runoff.
<i>Floodplains</i>	There are no changes in development under this alternative. This alternative would result in <i>negligible long-term adverse</i> impacts on floodplain values for the park and surrounding areas.	Changes to development include the construction of a visitor center immediately south of the headquarters and a reduction in the paved parking area. These changes would occur in regulatory floodplains. Although the reduction of paved parking will have a <i>negligible beneficial</i> impact on floodplains, the visitor center will have <i>negligible adverse</i> impacts. There is no alternative to placing structures in the floodplain.	Changes to development include the construction of a visitor center outside the current park boundary and a reduction in the paved parking area. These changes would occur in regulatory floodplains. Although the reduction of paved parking will have a <i>negligible beneficial</i> impact on floodplains, the visitor center will have <i>minor adverse</i> impacts. There is no alternative to placing structures in the floodplain.	There are no changes in development under this alternative. This alternative would result in <i>negligible long-term adverse</i> impacts on floodplain values for the park and surrounding areas.
<b>Cultural Resources</b>				
<i>Archeological Resources</i>	Resources would continue to experience <i>beneficial</i> impacts due to the established resource protection measures for the identification and treatment of archeological	Construction associated with a visitor center immediately south of the park headquarters, widening of the sidewalk, and removal of the	Construction associated with a visitor center outside the current park boundary, removal of the existing parking lot surface, and widening of the sidewalk could result	Resources would continue to experience <i>beneficial</i> impacts due to the established resource protection measures for the identification and treatment of archeological

Consequences On...	Alternative A No-Action	Alternative B	Alternative C (Environmentally Preferred)	Alternative D (Agency Preferred)
	resources that the NPS follows.	existing parking lot surface could result in the disturbance of archeological resources.  Despite impacts associated with construction, resources would continue to experience <i>beneficial</i> impacts due to the established resource protection measures for the identification and treatment of archeological resources that the NPS follows.	in the disturbance of archeological resources.  Despite impacts associated with construction, resources would continue to experience <i>beneficial</i> impacts due to the established resource protection measures for the identification and treatment of archeological resources that the NPS follows.	resources that the NPS follows.
<b>Landscapes</b>	Retaining the parking lot will result in a continued <i>major adverse</i> impact on historic views and the landscape.  The continued existence of the ticket booth, located in front of the entrance to the fort, would result in a <i>moderate adverse</i> impact.	The reduction of the size of the parking lot, the removal of the ticket booth, and the construction of a visitor center are important elements. The impacts of this alternative on the historic views and landscape of the park will be <i>moderate to major, long-term, and beneficial</i> .	The reduction of the size of the parking lot and the removal of the ticket booth are important elements. The impacts of this alternative on the historic views and landscape of the park will be <i>major, long-term, and beneficial</i> .	By retaining the parking lot, the impacts of this alternative on the historic views and landscape of the park will continue to be <i>major, long-term, and adverse</i> .
<b>Historic Structures</b>	Historic structures would continue to be protected as required by law. However, no further direction for future use and interpretation of these structures would be developed and their educational potential would go unrealized. In addition, there could be deterioration and loss of the historic fabric as a result of natural deterioration and ongoing human interaction.	Remove three of seven non-compatible, non-historic uses of casemates from the fort will result in <i>minor beneficial</i> impacts on the historic resources of the park.	Remove two of seven non-compatible, non-historic uses of casemates from the fort will result in <i>minor beneficial</i> impacts on the historic resources of the park.	Remove three of seven non-compatible, non-historic uses of casemates from the fort will result in <i>minor beneficial</i> impacts on the historic resources of the park.
<b>Visitor Use and Experience</b>	The No-Action Alternative would continue to provide visitors with educational and self-	Provides visitors with additional interpretive opportunities as well as providing for a continuation of the	Provides visitors with additional interpretive opportunities as well as providing for a continuation of the	Alternative D would not address the need for a visitor center and would retain the visitor parking lot.

Consequences On...	Alternative A No-Action	Alternative B	Alternative C (Environmentally Preferred)	Alternative D (Agency Preferred)
	exploration opportunities. The existing levels of visitor facilities would be continued with no plans for expanded visitor facilities. This alternative would have <i>moderate to major, long-term and adverse</i> effects on visitor use and experience.	glacis. Visitor facilities would be expanded to include a visitor center. This alternative would have <i>moderate to major, long-term and beneficial</i> effects on visitor use and experience.	glacis. Visitor facilities would be expanded to include a visitor center. This alternative would have <i>major, long-term and beneficial</i> effects on visitor use and experience.	This alternative would have moderate to <i>major, long-term and adverse</i> effects on visitor use and experience.
<b>Socioeconomic Environment</b>				
<i>Operation of the Park</i>	Socioeconomic impacts to the local area resulting from the operation of the park would reflect existing conditions and hence would be <i>minor, long-term, and beneficial</i> .	Socioeconomic impacts to the local area resulting from the operation of the park and new visitor center would be <i>minor, long-term, and beneficial</i> .	Same as Alt. B	Same as Alt. B
<i>Tourism and Recreation</i>	A <i>moderate, beneficial, and long-term</i> effect on the park's contribution to local tourism and recreation. In addition, it would continue to provide important economic benefits to the regional economy in the form of tourism expenditures. Therefore, it would have a minor, beneficial, and long-term impact on the regional tourism economy.	Same as Alt. A	Same as Alt. A	Same as Alt. A
<b>Operational Efficiency</b>	No substantial change in operations of the park. At current staffing levels and with increasing visitation, operational efficiency in providing for visitors and park resources would be increasingly diminished. Thus, a result in impacts that is <i>minor, long-term, and adverse</i> .	Beneficial impacts resulting from a new visitor center next to the park headquarters and the benefits of reducing the size of the parking lot would be <i>moderate, long-term, and beneficial</i> when additional staffing needs are taken into consideration.	The benefits of reducing the size of the parking lot and introducing a visitor center in the Spanish Quarter result in impacts that are <i>minor to moderate, long-term, and beneficial</i> to operational efficiency.	Impacts to operational efficiency resulting from the retention the parking lot and relocating some administrative functions from the fort to a new structure would result in impacts that are <i>minor, long-term, and beneficial</i> to operational efficiency.



## Chapter 3 - Affected Environment

*The Affected Environment and Environmental Consequences chapters comprise the Environmental Impact Statement (EIS) for this Draft General Management Plan. The descriptions, data, and analysis presented focus on the specific conditions or consequences that may result from implementing the alternatives. The EIS should not be considered a comprehensive description of all aspects of the human environment within or surrounding the park.*

*A description of existing environmental conditions give the reader a better understanding of planning issues and establish a benchmark by which the magnitude of environmental effects of the various alternatives can be compared.*

### **MANDATORY ENVIRONMENTAL IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS**

The following mandatory environmental impact topics were dismissed from further analysis:

#### **NATURAL RESOURCES**

##### **Air quality**

Section 118 of the 1963 Clean Air Act (42 USC 7401 *et seq.*) requires an NPS unit to meet all federal state, and local air pollution standards. The Clean Air Act also provides that the federal land manager has an affirmative responsibility to protect air quality related values from adverse pollution impacts, including visibility, plants, soils, water quality, cultural resources, and visitor health. St. Johns County, as well as the rest of Florida, is designated as an attainment area, in compliance with the standards set forth by the Environmental Protection Agency. St. Johns County is currently well below air quality standards as set by the Environmental Protection Agency (FDEP 2004).

If an alternative were selected that required construction, local and park air quality would temporarily be affected by dust and construction vehicle emissions during

construction. Hauling material and operating equipment during the construction period would result in increased vehicle exhaust and emissions. Emissions would generally disperse fairly quickly from the project area because airflow is good and air stagnation seldom occurs due to the park's proximity to the water and ocean breeze. To mitigate the impacts of increased vehicle emissions, idling of construction vehicles would be limited. Overall, construction related impacts upon air quality would be adverse, but short term and negligible.

Depending on the alternative selected and implemented, visitor use could increase and in turn emissions from visitor vehicles could increase. Although emissions could increase, this increase would likely not significantly affect air quality.

The NPS has very little direct control over air quality within the air shed encompassing the park but will cooperate with the Florida Department of Environmental Protection and the Environmental Protection Agency to monitor air quality and ensure that the park's overall air quality and visibility conditions remain good.

Because degradation of local air quality due to construction activities and emissions would be short term, lasting only as long as construction, and negligible; and any long-

term, adverse impacts that implementation of any of the alternatives would have on the air quality of either the park or the region, are negligible; air quality was dismissed as an impact topic.

### **SOCIALLY OR ECONOMICALLY DISADVANTAGED POPULATIONS**

U.S. Census Bureau income and poverty estimates for St. Johns County in 1999 (U.S. Census Bureau 2000) indicate the local area has a significantly lower percentage of persons below the poverty level (8%) than for Florida (12.5%) or the U.S. (12.4%). U.S. Census information also shows that St. Johns County in 2000 has a very low minority population (11%) compared to Florida (34.6%) or the U.S. (30.9%). Since none of the proposed actions is expected to reduce the availability of affordable housing or result in a negative impact to the socioeconomic environment of the local community, minority and low-income populations, to the extent they exist, would not be significantly affected.

### **MANDATORY ENVIRONMENTAL IMPACT TOPICS DISCUSSED IN PLAN: DESCRIPTION OF EXISTING CONDITIONS**

The following discussion provides an understanding of existing environmental conditions potentially affected by implementing the alternatives:

#### **NATURAL RESOURCES**

Within the boundary of the park there are no common natural resources as defined by NPS policies. The 20-acre site has been modified throughout its history by human activity. There are no free-flowing streams, wetlands, forests, or other naturally occurring ecosystems here. Therefore, management activities with respect to

natural resources within the park boundaries are limited to those with potential impacts on water quality and floodplains.

The grounds of the park are principally open grassy areas with scattered palm and oak trees mainly around the park perimeter. The grounds are completely manipulated, with regular mowing, trimming, fertilizing, and removal of invasive species and storm damaged vegetation.

#### **Water Quality**

The park is situated directly on the banks of the Matanzas River. The view eastward toward the Atlantic Ocean is of great interpretive and aesthetic importance. Matanzas River is a body of water located in St. Johns and Flagler Counties in Florida. Contrary to its name, it is not actually a river, but a narrow saltwater bar-bounded estuary sheltered from the Atlantic Ocean by Anastasia Island.

The Matanzas River is roughly 20 miles (32 km) in length and extends from St. Augustine Inlet in St. Augustine, Florida southward to approximately 8 miles (13 km) south of the Matanzas Inlet on the southern tip of Anastasia Island. The river is part of the Intracoastal Waterway.

The Matanzas River supports an extensive tidal marsh habitat that includes salt marshes, mangrove tidal wetlands, oyster bars, estuarine lagoons, upland habitat, and marine environments. The Matanzas River faces several pollution issues, mostly related to urbanization in St. Augustine and the northern portion of Anastasia Island.

Although the park contains no part of the Matanzas River within its boundary, water quality will be addressed as an impact topic.

## **Floodplains**

All of the park is within the 100-year regulatory floodplain as is the city of St. Augustine. Flooding can occur and is usually storm (i.e. hurricane) induced.

## **CULTURAL RESOURCES**

### **Museum Collection**

The museum collection at The park and Fort Matanzas is considered to be one entity for administrative purposes; however they are reported and accounted for as two separate collections, each with their own accessioning and cataloging systems. Most all of the objects are stored together. The museum collection includes 41,822 artifacts. Most are Indian, Spanish and English pottery sherds, bottles, and fragments thereof, gun flints, arrowheads, human and animal skeletal remains, military equipment and accoutrements, domestic items, coins, and manuscript collections related to the Fort's artillery. The museum collection also includes a substantial amount of archival material, estimated at 449,500 items.

The archeological collection has resulted from a number of formal excavations conducted at both the park and Fort Matanzas National Monument. Approximately 40,085 archeological specimens have been collected through excavations, with historic ceramics representing the majority of the objects. Only 4,100 of these objects are stored at the parks, and some are on loan to the Southeast Archeological Center (SEAC) in Tallahassee, Florida, for analysis, study, and cataloging. Included in the loan to SEAC are 23 objects that fall under the Native American Graves Protection and Repatriation Act (NAGPRA) regulations. SEAC has analyzed the human remains and completed the mandated inventories; the

consultation process of repatriating the remains has begun. (Lang et al. 1995)

There are 861 history objects in the museum collection. These consist primarily of flags and banners, books, military objects, and some personal objects. There are thirteen firearms in the collection. An artillery collection of 38 pieces, including 24 cannons, 8 howitzers, 6 mortars, and 12 cannon carriages of which 18 pieces were received with the fort in 1933 and the rest have been acquired through gift, exchange, or loan (NPS 1993). All 38 pieces of the artillery collection are authentic and two additional pieces are reproductions that are used for firing demonstrations.

Only 97 objects are on exhibit throughout the casemates inside the fortress and few are stored at the park and SEAC. The collection stored at CASA consists of archives stored in a room of 750 square feet constructed as an addition to the headquarters building (NPS 2003). Museum collections not stored at the park or SEAC are stored in the Timucuan Ecological and Historical Preserve museum management facility.

### **Historic Structures**

There are eleven historic structures at the park (Brown 1997). The List of Classified Structures (LCS) is the NPS's system wide computerized database of historic structures. Structures on the LCS have either been determined eligible for the National Register of Historic Places or are managed by the parks as cultural resources. Of the eleven structures in the LCS inventory, ten of the structures are listed on the National Register of Historic Places as contributing to the historic district. Although the Tricentennial Marker fails to satisfy the National Register's fifty-year requirement, it is managed as a cultural resource:

- **Castillo de San Marcos (1672-1756).** A bastioned masonry fortification located north of the colonial city of St. Augustine, the Castillo de San Marcos centers on a square plaza, the sides of which measure 320 feet. Diamond-shaped bastions project outward from each corner of the fortress; each bastion has a sentry box at its point. The coquina walls of the Castillo de San Marcos are thirty feet high, ten to fourteen feet thick at the base, and five feet thick at the top. Vaulted casemates support the wide terreplein, and embrasures at intervals along the top of the wall provided openings through which cannon could be fired. The entrance to the fort, or sally port, is located in the south curtain wall and accessed by a reconstructed drawbridge.
- **Moat (1672-1696).** A coquina-lined ditch approximately forty-two feet wide surrounds the Castillo de San Marcos on the north, west, and south. The ditch contains a small amount of water. Originally constructed to encircle the fort on all sides, the moat was filled on the east side in 1842 to create the water battery.
- **Ravelin (1762).** A roughly triangular masonry structure located within the moat on the south side of the Castillo de San Marcos. The ravelin was built to afford additional protection to the corners of the bastions and to protect the sally port. It is connected to the main structure by a reconstructed drawbridge.
- **Covered Way (1672-1762).** The flat, grassy area between the moat and the glacis on the north, west, and south sides of the Castillo de San Marcos is separated from the glacis by a masonry retaining wall five feet high.
- **Glacis (1672-1758).** The open, sloped area beyond the covered way that stretches from the fort into the landscape on the north, west, and south sides of the Castillo de San Marcos. The glacis was historically kept clear of trees and other obstructions in order to maintain a clear line of vision for the fort's defenders.
- **City Gate Pillars (1808).** Two four-foot-square coquina pillars frame an opening twelve feet wide. Each pillar has a convemolded pyramidal cap with a round finial and a height of fourteen feet. On either side of the pillars, low stone walls thirty feet long by eleven feet wide extend to meet reconstructed portions of the Cubo Line. North of the gate, a coquina bridge spans a shallow moat. The City Gate was originally part of the Cubo Line and provided entrance to the city of St. Augustine from the north.
- **Cubo Line (1808, reconstructed 1963).** A reconstruction of the earth and log structure built by the Spanish in 1808, the Cubo Line extends from the covered way on the northwest side of the fort



St. Augustine City Gate and Pillars

and proceeds 250 feet west toward the city Gate. The northern and southern faces of the defense work are concrete cast to imitate the palm logs of the original wall. Between the concrete walls is earthen infill with a depth of forty-five feet. A dry moat exists along the north face of the Cubo Line.



North Fort Green and Cubo Line

- **Seawall (1833-1842).** Coquina structure faced with granite to the high water mark, the seawall protects the fort from the waters of Matanzas Bay. The Army Corps of Engineers substantially reconstructed the original Spanish seawall between 1833 and 1844.
- **Water Battery (1842).** The earth and coquina structure comprises the east side of the Castillo de San Marcos, between the curtain wall and the seawall. The Army Corps of Engineers built the water battery on top of the east side of the moat between 1842 and 1844 to permit placement of guns facing the harbor.
- **Hot Shot Furnace (1842).** Stuccoed coquina furnace measuring nine feet long by eight feet wide has a chimney eleven feet high on the south end. Small arched openings with lintels provide access to the interior of the furnace on the south and north ends. The exterior of the structure is marked with iron

crossties on all sides. The hot shot furnace sits on top of the water battery on the east side of the fort.



Hot Shot Furnace, Photo by Jack E. Boucher 1965

- **Tricentennial Marker (1972).** Three foot high concrete podium-type marker commemorates the tricentennial of Castillo de San Marcos and has an inscribed metal plaque with plastic cover on face. Although the Tricentennial Marker is ineligible for the National Register because it is less than 50 years old, it is significant as a commemorative structure marking the tricentennial of the Castillo de San Marcos. As a result, it is managed as a cultural resource.

## Landscape

The NPS has been part of the preservation effort for the landscape since it assumed responsibility of the park in 1933. The park contains 20.48 acres. The park area is roughly triangular, with the Castillo de San Marcos at the east on Matanzas Bay. It is surrounded on the other sides by the fort green, kept open in accord with Spanish colonial military practice.

Although the park landscape is managed for preservation, it is not entirely free of non-historic objects and elements.

Contemporary elements have been added to accommodate the visiting public and provide facilities for managing and maintaining the park. Contemporary elements in the landscape include:

- A paved parking area located on the south fort green. Built in 1965, it holds 139 cars and three buses.
- Approximately 3,000 feet of sidewalk are located within the park.
- A portion of Castillo Drive (U.S. Business Route 1 and Florida A1A) within the park boundary is owned by the NPS.
- Built in 1964, an administration building and covered maintenance area (3,853 square feet) are located at the extreme northwest end of the park. The structures were placed here to prevent their intrusion on the historic scene and are fairly well screened by trees and other plantings. A paved parking area is located in front of these buildings.
- A small fee booth is located immediately south of the ravelin on the fort green. The booth does not fit with the character of the historic setting and is not screened from view.
- Routed wood interpretive exhibits, signs, and waysides are strategically placed throughout the Castillo de San Marcos and park grounds.

### **Archeological Resources**

Although numerous archeological investigations have been performed at the park most have been small in scale. Consequently, this provides only piecemeal information that is gathered by different testing strategies. SEAC recommends a

large-scale geophysical survey of the park grounds surrounding the fort. Based on previous excavations, future archeological discoveries could possibly uncover: evidence of Oglethorpe's siege, information concerning earthwork construction, further evidence of prehistoric occupation, and other sub-surface features present on the park grounds. (Southeast Archeological Center 2002.)

### **INTERPRETATION AND MUSEUM OPERATIONS**

#### **Facilities Capable of Supporting Interpretation**

Exhibits located in the casemates of the fort, including some with audio and others with artifacts, explore the full range of fort history, paying particular attention to the Spanish colonial period. Some of the casemates offer recreated settings suggesting historic use. Subjects interpreted include (but are not limited to): the fort's construction, sea routes of Spain, the Western Indian incarceration, and Spanish and British quarters.

The park has both a guide brochure and a handbook, supplemented with several other park brochures that explore chapters in the fort's lengthy history. Informational and interpretive signs have been strategically located around the grounds of the fort and at the reconstructed Cubo Line.

Visitors can climb to the upper level of the fort and look out over the city and bay. Cannon (both replica and authentic) sit in place along the walls and bastions, interpreted with occasional signs. In season, the staff offers weapons firing talks. Several special events, linked to landmarks in the fort's history and supported by living history, punctuate the park's calendar of events.





Flag Room Exhibit

### Opportunities for Solitude or a Contemplative Experience

Opportunities exist for visiting the park grounds during and after the fort's operating hours. Visitors can climb to the upper level of the fort and look out over the city and bay. Observing the fort and walking along the sea wall are ways to get away from crowded areas, especially outside of fort operating hours.



Castillo de San Marcos Gun Deck

### Public Contact with NPS Personnel (Staff or Trained Volunteers)

Castillo de San Marcos National Monument is second in visitor contacts among the NPS

units that conduct historic weapons demonstrations with approximately 66,726 visitor contacts in 2003.

There is one way into and out of the fort; all visitors who decide to enter the fort have contact with staff at an information/fee collection booth. As they walk through the ravelin, cross the drawbridge, and enter the fort via the main gate, visitors are greeted again by staff or volunteers and offered advice on how to tour the fort. Rangers and volunteers offer interpretive talks and tours of the fort. School groups are guided through the fort by staff or certified tour guides, usually via special arrangements made in advance.

## VISITOR USE AND EXPERIENCE

### Visitor Use and Trends

Annual visitation to The park was 830,009 people in 1992, and visitation has seen a decline to 553,139 people in 1998 with an increase to 659,798 people in 2003.

A survey conducted to determine how to report official visitation statistics revealed that 12 percent of all visitors who stopped at the entrance booth did not enter the fort. Staff estimates that 15 percent of all visitors come for recreation and these visitors do not enter the fort or make inquiries at the information booth.

The peak visitation time for the park is between mid-February and August. During this period, the park receives 65 percent of its annual visitors with a significant increase in visitation by large family groups. Visitation peaks on weekends with Tuesday, Wednesday, and Thursday being slower days. Visitation is also heavy during the Christmas/New Year holiday period. Visits by seniors and Canadians increase in the winter months with the population being primarily adult peer groups. Activities in St.

Augustine, Jacksonville, and Daytona Beach such as Bike Week and the Daytona 500 cause noticeable fluctuations in park visitation. School groups account for roughly 10 percent of the visitors to the fort. Ninety percent of those groups are made up of elementary and middle school students. School visitation is heaviest in April and May. (NPS 2002.)

### **Visitor Understanding and Experience**

Although there are ample opportunities for visitors to participate in ranger led programs and self-guided tours, there is little opportunity for visitors to learn about the history of the Castillo de San Marcos in any great detail. There is no park run visitor information center where the full history can be interpreted. Some casemates inside the fort are accessible to visitors for interpretation purposes. In these areas, visitors can read wayside exhibits and view soldiers quarters as they would have appeared during the colonial period. However, the visitor only gets a glimpse into the overall history of the fort. In the casemate adjacent to the sally port entrance, Eastern National operates a very small gift shop, which gets crowded during high visitation.

### **Accessibility for Visitors**

The entire first floor of the Castillo de San Marcos is wheelchair accessible, with only the top gundeck unavailable to those in wheelchairs. Accessible parking is available in the parking lot, as are spaces for busses for short term parking. Brochures on the history of the fort are available in several foreign languages. A large bronze model of the fort located in the sallyport (entranceway) enables visually challenged visitors to feel the outlines of the fortress. An audio/visual room on the first level of the fort will provide opportunities for viewing live demonstrations taking place on

the gun deck (second level of the fort) for those finding it difficult to access the gun deck.

## **PARK OPERATIONS AND ADMINISTRATION**

Factors in this category describe the existing conditions related to park operations and administration potentially impacted by implementation of the alternatives.

### **Personnel**

Castillo de San Marcos and Fort Matanzas National Monuments are organized into five divisions, all under the supervision of the park superintendent. Three of the divisions provide services for both sites. Those divisions are Law Enforcement/Fee Management, Administration, and Maintenance. The other two divisions provide services specific to Fort Matanzas and the park. Those two divisions are Fort Matanzas Visitor Service Operations and Castillo de San Marcos Visitor Service Operations.

The current staffing level of the National Monument, including full-time, part-time, term, vacant, and other position categories, consists of 13 positions in Law Enforcement/Fee Management, 9 positions in Visitor Service Operations, 4 positions in Administration, 9 positions in Maintenance/Facility Operations, 1 Information Technology specialist, and the park superintendent.

The headquarters of The park is located at the north end of the National Monument site, directly across State Road A1A and to the east of the St. Augustine Visitor Information Center. Most functions that serve the park originate from this location. Some services are currently housed in the fort in modified casemates.





**Park Administrative HQ Building**

Volunteers provide an important supplement to the paid staff of the National Monument. Over the last five years they have donated thousands of hours of personal time performing administrative and maintenance services, conducting educational and interpretive programs, and assisting park staff with vital preservation and resource management duties.

### **Parking**

There are three parking areas totaling approximately 150 spaces. The largest of the lots is dedicated for park visitor parking, although visitors to the historic district also park there as it is a metered lot and entry is not monitored. This lot contains accessible spaces and three bus spaces. A smaller lot is located by the park headquarters building for employee parking, and the third lot, smaller still, is also for employee parking and is located across State Road A1A from the fort.

Also, across State Road A1A from the park, there is limited parking within the historic district itself. There is more parking nearby, behind the city's visitor information center.

### **Employee, Volunteer, and Visitor Health and Safety**

The overall park environment is safe and healthy for employees, volunteers, and

visitors. However, two conditions cause safety concerns. Due to the fort's age and the fact that it is a seventeenth century masonry structure built for military purposes, surfaces are uneven and potentially hazardous in some areas of the fort. This safety concern is difficult to remedy without altering the look and feel of the historic fort. The other concern is that many visitors walk to the park from the city's historic district and therefore have to cross State Road A1A, which has a high volume of vehicle traffic. There are two crossing zones with traffic lights, but people do not always use these zones.

## **SOCIOECONOMIC ENVIRONMENT**

### **Economic Contribution to Community**

The park contributes to the local economy by attracting visitors each year. It is also an integral component of the overall tourism experience that makes St. Johns County a successful tourist destination. In addition, the park contributes directly to the local economy by hiring employees and purchasing goods and services from local suppliers.

### **Provides Incentives for Partnering with Local Governments, Community Groups, and Individual Citizens**

Park management is active in the local community. It maintains a close working relationship with historical associations, societies, and organizations that have legitimate goals in preserving and interpreting the historical values of the City of St. Augustine. The park continues to cooperate on issues of mutual interest and concern and works to strengthen its existing relationships with friends support groups, volunteers, and local government officials. Park management also cooperates with local and state government offices and community and civic organizations to

maintain the scenic qualities and historic setting of the park. This coordination serves to heighten visitor enjoyment and appreciation of the park and its prominence in the overall historic setting of St. Augustine.

### **Regional and Local Tourism**

There are many tourist destinations within a two-hour drive of St. Augustine. Among the top destinations are Orlando, with many theme parks and attractions; Daytona, with mile of wide beaches, the Daytona 500 race track, and Bike Week; and Cape Canaveral with the Kennedy Space Center, Canaveral National Seashore, and Merritt Island National Wildlife Refuge.

There are also many local destinations for tourists. In 2000, there were over 3.5 million overnight visitors in St. Johns County. The historic district of St. Augustine has many shops, restaurants, and lodging and offers a pleasing and pedestrian friendly atmosphere for strolling the historic areas. Other local area attractions are Fort Matanzas, Flagler College, and historic churches. There are numerous museums, golf courses, marinas, opportunities for water sports, and 43 miles of beaches.



**St. George St. - Spanish Quarter**

### **Community Characteristics**

St. Augustine retains much of the character of the city's colonial beginnings. The historic city plan is largely intact. Among the major features still in place from the original plan are: the city plaza, the street plan, the Castillo de San Marcos, the City Gate, and several eighteenth century houses. St. Augustine is a small city with a relaxed atmosphere, and its historic core is accommodating to pedestrians. The city is a popular tourist destination and one of the country's best examples of historic preservation on a larger community-wide scale. The city's historic preservation program has been very effective in ensuring that new development is compatible with the character of its various historic districts, including those areas adjacent to the park.

In recent years, there has been a growing recognition of the city's historic and architectural significance. As a result, much has been accomplished in recreating San Agustin Antiquo in conformance with original Spanish and English designs. Since 1960, more than 40 structures have been restored or reconstructed and several gardens reestablished. This effort has centered on the two blocks of St. George Street leading south from the City Gate. The city, business firms, private individuals, and a number of organizations or agencies have contributed to this remarkable achievement.

## Chapter 4 - Environmental Consequences

*The Affected Environment and Environmental Consequences chapters comprise the Environmental Impact Statement (EIS) for this Draft General Management Plan. The descriptions, data, and analysis presented focus on the specific conditions or consequences that may result from implementing the alternatives. The EIS should not be considered a comprehensive description of all aspects of the human environment within or surrounding the park.*

*The purpose of this chapter is to discuss impacts on the environment that may be brought about by actions in the various alternatives.*

### INTRODUCTION

The purpose of this chapter is to discuss impacts on the environment that may be brought about by actions in the various alternatives. By definition the alternatives in a GMP/EIS are conceptual in nature. Specific design features, building footprints, and precise locations for all potential ground disturbing activities in these alternatives would only be identified in future implementation plans. Therefore the impacts to follow are, of necessity, very general. Future environmental assessments, prepared in connection with any new facility design and construction, would provide more specific and quantitative analysis of the impacts on resources. All impacts for all alternatives were determined by multi-disciplinary planning team discussion and review.

The National Environmental Policy Act requires that environmental documents discuss the environmental impacts of a proposed federal action, feasible alternatives to that action, and any adverse environmental effects that cannot be avoided if the proposed action is implemented. This section of the GMP/EIS describes the potential environmental impacts of implementing each of the four alternatives on natural and cultural resources, the visitor experience, the socioeconomic environment, and park operations and facilities. These impacts

provide a basis for comparing the advantages and disadvantages of the four alternatives.

In this chapter, impact topics are analyzed under the following headings:

- Natural resources
- Cultural resources
- Visitor use and experience
- Socioeconomic environment
- Operational efficiency

The first part of this chapter discusses the methodology the planning team used to identify impacts and includes definitions of terms. The action alternatives are then analyzed with reference to the No-Action Alternative (continue current management).

Analysis of the No-Action Alternative (Alternative A) identifies what resource conditions would be if no changes to facilities or park management occurred. This alternative reflects changes associated with the growth in regional population and increased visitor use that is anticipated during the next 15 – 20 years. The three action alternatives are then compared to the No-Action Alternative to identify the incremental changes that would occur as a result of changes in park facilities and management.

All impact topics are assessed for each alternative. The discussion of each

alternative includes a description of the positive and negative effects of the alternative, a discussion of cumulative effects, if any, and a conclusion. The conclusion includes a discussion of whether, and to what extent, the alternative would impair park resources and values. For the analyses, the planning team considered mitigation measures.

At the end of each alternative there is a discussion of energy requirements and conservation potential; unavoidable adverse impacts; irreversible and irretrievable commitments of resources; the relationship of short-term uses of the environment; and the maintenance and enhancement of long-term productivity.

## **METHODOLOGY**

The planning team based the impact analysis and the conclusions in this part largely on a review of existing literature and park studies, information provided by experts within the NPS and other agencies, park staff insights and professional judgment.

The following section describes the methodology used for assessing impacts to natural resources, cultural resources, visitor use and experience, the socioeconomic environment, and park operations.

## **NATURAL RESOURCES**

### **Impact Assessment**

The NPS is required to protect the natural abundance and diversity of all of the park's naturally occurring resources and communities. NEPA calls for an examination of the likely impacts of the alternatives on the human environment. The entire 20-acre site has been modified by human activity from one end to the other. There are no free-flowing streams,

wetlands, forests, or other naturally occurring ecosystems here.

Proposed actions and management zoning under this plan were evaluated in terms of the context, intensity, and duration of the impacts, as defined below, and whether the impacts were considered beneficial or adverse to the natural environment.

Generally, the methodology for natural resource impact assessments follows direction provided in the CEQ Regulations for Implementing NEPA, Parts 1502 and 1508.

**Water Quality.** The water quality analysis identified potential effects on water quality to Matanzas Bay (adjacent to the park boundary) associated with existing and proposed construction and rehabilitation of park infrastructure, principally parking areas and visitor/administrative buildings. The relationship of pollution sources to existing water quality in Matanzas Bay has not been sufficiently studied and modeled to quantitatively assess impacts. The limited amount of baseline information on the physical, chemical, and biological characteristics of park surface water run-off makes it difficult to detect changes in water quality. Consequently, water quality impacts of the alternatives were assessed qualitatively.

**Floodplains.** The impact assessment for floodplains focuses on a qualitative analysis of locating projects in floodplains, the relative extent of the effects, and the effectiveness of mitigation measures employed. The entire National Monument property is located in the 100-year regulatory floodplain. Flooding can occur and is usually storm (i.e. hurricane) induced. Impacts were assessed from available floodplain maps of the area. The *Floodplain Management Guidelines* (National Park Service 1993), Director's Order 77-2, and NPS Floodplain Procedures Manual 77-2

and the extent of alteration to the floodplain were used to define the intensity of impacts.

### Context

This is the setting within which an impact is analyzed, such as an affected locality or region, affected commercial or cultural interests, or society as a whole. In this EIS, the intensity of impacts to natural resources is evaluated within a local context (i.e., project area) or regional context, as appropriate. The contribution of particular actions or management prescriptions to cumulative impacts is evaluated in a regional context.

### Intensity

This evaluation used the approach for defining the intensity (or magnitude) of an impact presented in *Director's Order 12: Conservation Planning, Environmental Impact Analysis and Decision-making* (National Park Service, 2001). Each impact was identified as negligible, minor, moderate, or major. Because this is a programmatic document, intensities are expressed qualitatively.

The definition of intensity varies by impact topic, as follows:

#### Water Quality:

Negligible	An action would have no measurable or detectable effect on water quality or the timing and intensity of flows.
Minor	An action would have measurable effects on water quality or the timing or intensity of flows. Water quality effects could include increased or decreased loads of sediment, debris, chemical or toxic substances, or pathogenic organisms.
Moderate	An action would have clearly

	detectable effects on water quality or the timing or intensity of flows and potentially would affect organisms or natural ecological processes. Alternatively, an impact would be visible to visitors.
Major	An action would have substantial effects on water quality or the timing or intensity of flows and potentially would affect organisms or natural ecological processes. Alternatively, an impact would be easily visible to visitors.

#### Floodplains:

Negligible	Impacts would not occur within the regulatory floodplain as defined by the <i>Floodplain Management guidelines</i> (100-year or 500-year floodplain, depending on the type of action), or no measurable or perceptible change in the floodplain would occur.
Minor	Actions within the regulatory floodplain would potentially interfere with or improve floodplain areas.
Moderate	Actions within the regulatory floodplain would interfere with or enhance floodplain areas in a substantial way or in a large area.
Major	An action would permanently alter or improve floodplain areas.

#### Duration

The planning horizon for this GMP/EIS is approximately 15 – 20 years. Within this timeframe, impacts that would occur within five years or less were classified as short-term effects. Long-term effects would last for more than five years.

## Impact Type

The alternatives were evaluated in terms of whether impacts would be beneficial or adverse to natural resources. In some cases, an alternative could result in both adverse and beneficial effects to natural resources. Beneficial impacts would help preserve, enhance, and restore the natural functioning of ecological systems in the park. Adverse impacts would deplete or degrade natural resources.

CEQ regulations and the NPS's *Conservation Planning, Environmental Impact Analysis and Decision-making* (Director's Order #12) call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. All of the alternatives in this plan assume that park managers would apply mitigation measures to minimize or avoid impacts. Increased visitor use would generate the need for additional monitoring and the mitigation of impacts. If appropriate mitigation measures were not applied, the potential for resource impacts would increase and the magnitude of those impacts would rise.

## Direct Versus Indirect Impacts

Direct impacts would be caused by an action and would occur at the same time and place as the action. Indirect impacts would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

## CULTURAL RESOURCES

Impacts to archeological and cultural resources were identified and evaluated by (1) determining the area of potential

impacts; (2) identifying cultural resources present in the area of potential impacts that were either listed in or eligible to be listed in the National Register of Historic Places; (3) identifying the type and extent of impacts; (4) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the National Register; and (5) considering ways to avoid, minimize or mitigate adverse impacts.

## Impact Assessment

Impacts to cultural resources are described in terms of the context, intensity, duration, and type of impacts. This approach is consistent with the regulations of the CEQ that implement NEPA. These impact analyses are intended, however, to comply with the requirements of both NEPA and Section 106 of the NHPA. Under regulations issued by the Advisory Council on Historic Preservation, a determination of either *adverse effect* or *no adverse effect* must also be made for affected National Register eligible properties. Accordingly, a Section 106 summary is included in the discussion of each alternative. The summary is intended to meet the requirements of section 106 and is an assessment of the effect of the undertaking (implementation of the alternative) on cultural resources, based upon the criterion of *effect* and criteria of *adverse effect* found in the Advisory Council's regulations.

An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a property that qualifies it for inclusion in the National Register, e.g. diminishing the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonably foreseeable effects caused by an alternative that would occur later in time, be farther removed in distance or be cumulative (36 CFR Part 800.5, *Assessment of Adverse*

*Effects*). A determination of *no adverse effect* means there is an effect, but the effect would not diminish in any way the characteristics of the property that qualify it for inclusion in the National Register.

### Context

The intensity of impacts to cultural resources is evaluated within a local context (i.e., project area) or regional context, as appropriate. The contribution of particular actions or management prescriptions to cumulative impacts is evaluated in a regional context.

### Intensity

The definition of intensity is as follows:

Negligible	The impact is at the lowest levels of detection – barely perceptible and not measurable.
Minor	For archeological resources, the impact affects an archeological site(s) with modest data potential and no significant ties to a living community's cultural identity. The impact does not affect the character defining features of a National Register of Historic Places eligible or listed structure, district, or cultural landscape.
Moderate	For archeological resources, the impact affects an archeological site(s) with high data potential and no significant ties to a living community's cultural identity. For a National Register eligible or listed structure, district, or cultural landscape, the impact changes a character defining feature(s) of the resource but does not diminish the integrity of the

	resource to the extent that its National Register eligibility is jeopardized.
Major	For archeological resources, the impact affects an archeological site(s) with exceptional data potential or that has significant ties to a living community's cultural identity. For a National Register eligible or listed structure, district, or cultural landscape, the impact changes a character defining feature(s) of the resource, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the National Register.

The criteria for listing properties on the National Register evaluate the quality of significance in American history, architecture, archeology, engineering, and culture that is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded or may be likely to yield, information important in prehistory or history.

### **Duration**

Impacts that would occur within five years or less were classified as short-term effects. Long-term effects would last for more than five years.

### **Impact Type**

The four alternatives were evaluated in terms of whether impacts would be beneficial or adverse to cultural resources. Beneficial impacts would help preserve and enhance character-defining qualities that make a property eligible for listing on the National Register. Adverse impacts would deplete or negatively alter the resources and any character-defining qualities.

Mitigation would tend to reduce the negative impacts of a particular alternative. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. Potential adverse effects to cultural resources would require further consultation and mitigation in accordance with Section 106 of the NHPA.

### **Direct versus Indirect Impacts**

Direct impacts would be caused by an action and would occur at the same time and place as the action. Indirect impacts would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

### **VISITOR USE AND EXPERIENCE**

The visitor use and experience analysis evaluates the impact of the four alternatives on opportunities for visitors to experience

the park and learn about and appreciate its many resources.

### **Impact Assessment**

This analysis is conducted in terms of how the visitor experience might vary by applying the different management zones and management prescriptions in the alternatives. Analysis is qualitative rather than quantitative due to the conceptual nature of the alternatives. Consequently, professional judgment was used to reach reasonable conclusions as to the intensity and duration of potential impacts, as well as whether the impacts would be beneficial or adverse. The impact assessment focuses on four aspects of visitor experience, as follows:

***Diversity of Visitor Activities.*** The analysis of effects on visitor activities is based on whether there was a complete loss, addition, expansion, or a change in access to or availability of a recreational opportunity, and how the management zones would affect group and individual opportunities.

***Interpretation and Orientation.*** The analysis of interpretation and orientation is based on whether there would be a change in the availability of education programs resulting from management zone application or other actions.

***Visitor Facilities and Services.*** This analysis discusses impacts on access to visitor facilities and services provided by the NPS and commercial services as a result of application of the management zones and other actions.

***Visitor Experience Values.*** This analysis is based on whether there would be a change in opportunities for solitude, tranquility, scenic views, and freedom to travel throughout the park.



## Context

The intensity of impacts involving visitor use and experience is evaluated within a local context (i.e., project area) or regional context, as appropriate. The contribution of particular actions or management prescriptions to cumulative impacts is evaluated in a regional context.

## Intensity

The definition of intensity is as follows:

Negligible	A negligible effect would be a change that would not be perceptible or would be barely perceptible by most visitors.
Minor	A slight change in a few visitors' experiences, which would be noticeable but which would result in little detraction or improvement in the quality of the experience.
Moderate	A moderate effect would be a change in a large number of visitors' experiences that would result in a noticeable decrease or improvement in the quality of the experience.
Major	A substantial improvement in many visitors' experience or a severe drop in the quality of many peoples' experience, such as the addition or elimination of a recreational opportunity or a permanent change in access to a popular area.

## Duration

Impacts that would occur within five years or less were classified as short-term effects. Long-term effects would last for more than five years.

## Impact Type

Impacts are evaluated in terms of whether they are beneficial or adverse to visitor experience. Beneficial impacts would include greater availability of recreational opportunities or educational programs, as well as other services and types of experiences. Adverse impacts would reduce access or availability to the four facets of visitor experience described above.

## Direct versus Indirect Impacts

Direct impacts would be caused by an action and would occur at the same time and place as the action. Indirect impacts would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

## SOCIOECONOMIC ENVIRONMENT

The impact analysis evaluated the effect that park operations and tourism and recreation would have on the local and regional economy under the four alternatives. The analysis of socioeconomic impacts was developed from a review of the local and regional conditions as they relate to the park. The potential for future development and changes in visitor use patterns was considered.

## Impact Assessment

Proposed actions and management zoning under this plan were evaluated in terms of the context, intensity, and duration of the socioeconomic impacts, and whether the impacts were considered to be beneficial or adverse.

## Context

The intensity of impacts is evaluated within a local context (i.e., project area) or regional

context, as appropriate. The contribution of particular actions or management prescriptions to cumulative impacts is evaluated in a regional context.

### **Intensity**

The definition of intensity is as follows:

Negligible	The impact either would be undetectable or would have no discernable effect.
Minor	The impact would be slightly detectable but would not have an overall effect.
Moderate	The impact would be clearly detectable and could have an appreciable effect.
Major	The impact would be substantial and have a highly positive (beneficial) or severely negative (adverse) effect. Such impacts could permanently alter the socioeconomic environment.

### **Duration**

Impacts that would occur within five years or less were classified as short-term effects. Long-term effects would last for more than five years.

### **Impact Type**

Impacts were evaluated in terms of whether the impact would be beneficial or adverse to the socioeconomic environment. Socioeconomic effects were recognized as beneficial if, for example, they would increase the employment base or enhance the experience of park visitors (such as by providing improved services). Adverse socioeconomic impacts would negatively alter social or economic conditions in the county or region.

### **Direct versus Indirect Impacts**

Direct impacts would be caused by an action and would occur at the same time and place as the action. Indirect impacts would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

### **OPERATIONAL EFFICIENCY**

For purposes of this analysis, operational efficiency refers to the adequacy of staffing levels and the quality and effectiveness of infrastructure used in the operation of the park in order to adequately protect and preserve vital resources and provide quality visitor experiences. Facilities analyzed include staff work areas, visitor orientation facilities, and administrative buildings used to support park operations. Park staff knowledge was used to evaluate the impacts of each alternative based on the current description of park facilities and operational efficiency presented in the Affected Environment section of this document.

### **Impact Assessment**

Proposed actions and management zones under this plan were evaluated in terms of the context, intensity, and duration of impacts on park operational efficiency, and whether such impacts were considered to be beneficial or adverse.

### **Context**

The intensity of impacts to park operations and facilities is evaluated within a local context (i.e., project area). The contribution of particular actions or management prescriptions to cumulative impacts is evaluated in a regional context.

## Intensity

Intensity of impact on park operational efficiency is defined as follows:

Negligible	The change may affect park operations, but would be so small as to have no measurable or perceptible consequences.
Minor	The change would be slightly detectable but would not have an overall effect.
Moderate	The change would be clearly detectable and could have an appreciable effect.
Major	The change would have substantial influence on site operations and facilities and include impacts that would reduce or improve the park's ability to provide adequate services and facilities to visitors and staff.

## Duration

Impacts that would occur within five years or less were classified as short-term effects. Long-term effects would last for more than five years.

## Impact Type

Impacts are evaluated in terms of whether the impacts on site operations and facilities would be beneficial or adverse. Beneficial impacts would improve site operations and/or facilities. Adverse impacts would negatively affect site operations and/or facilities and could hinder the park's ability to provide adequate facilities and services to visitors and staff.

## Direct versus Indirect Impacts

Direct impacts would be caused by an action and would occur at the same time and place as the action. Indirect impacts

would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

## CUMULATIVE IMPACTS

Regulations implementing NEPA issued by the CEQ require the assessment of cumulative impacts in the decision-making process for federal actions. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Cumulative impacts were determined by combining the effects of a given alternative with other past, present, and reasonably foreseeable future actions. The impact analysis and conclusions are based on information available in the literature, data from NPS studies and records, and information provided by experts within the NPS and other agencies. Unless otherwise stated, all impacts are assumed to be direct and long-term. All of the impact analyses assume that mitigating measures will be applied at the time the alternative is implemented in order to minimize or avoid impacts. Mitigating measures are described in the "Alternatives, including the Preferred Alternative" chapter of this document.

## IMPAIRMENT OF NATIONAL MONUMENT RESOURCES OR VALUES

In addition to determining the environmental consequences of the Preferred and other alternatives, the 2001 *NPS Management Policies* and Director's

Order 12 require analysis of potential effects to determine if actions would impair park resources or values.

The fundamental purpose of the National Park System, as established by the Organic Act and reaffirmed by the General Authorities Act, is to conserve the resources and values of each unit of the system. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on unit resources and values. However, the laws do give NPS management discretion to allow impacts to unit resources and values when necessary and appropriate to fulfill the purposes of a unit, as long as the impact does not constitute impairment of the affected resources and values. Moreover, an impact is less likely to constitute impairment if it is an unavoidable result, which cannot be further mitigated, of an action necessary to preserve or restore the integrity of unit resources or values.

Although Congress has given NPS management discretion to allow certain impacts within individual units, that discretion is limited by statutory requirement that the NPS must leave resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of unit resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. Impairment may result from NPS activities in managing the unit, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the unit.

An impact to any unit resource or value may constitute impairment. However, an impact would more likely constitute impairment to

the extent it affects a resource or value whose conservation is central to the unit's mission or critical to the unit's integrity.

To determine whether actions and management prescriptions involving park resources would result in impairment, each alternative was evaluated to determine if it had a major adverse effect on a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified as a goal in this GMP/EIS or other relevant NPS planning documents.

## **TOPICS DISMISSED FROM FURTHER ANALYSIS**

The following topics were dismissed from further analysis in this document, for the reasons indicated:

### **NATURAL RESOURCES**

#### **Air Quality**

Because degradation of local air quality due to construction activities and emissions would be short term, lasting only as long as construction, and negligible; and any long-term, adverse impacts that implementation of any of the alternatives would have on the air quality of either the park or the region, are negligible; air quality was dismissed as an impact topic.

#### **Geology, Physiography, and Soils**

The entire 20-acre site has been modified by human activity from one end to the other. There are no free-flowing streams,

wetlands, forests, or other naturally occurring ecosystems here. Therefore, this topic was dismissed from further consideration in this document.

### **Wetlands**

The entire 20-acre site has been modified by human activity from one end to the other. There are no free-flowing streams, wetlands, forests, or other naturally occurring ecosystems here. Therefore, this topic was dismissed from further consideration in this document.

### **Vegetation**

The entire 20-acre site has been modified by human activity from one end to the other. There are no free-flowing streams, wetlands, forests, or other naturally occurring ecosystems here. The grounds of the park are principally open grassy areas with scattered palm and oak trees mainly around the park perimeter. They are completely manipulated, with regular mowing, trimming, fertilizing, and removal of invasive species and storm damaged vegetation. Therefore, this topic was dismissed from further consideration in this document.

### **Terrestrial and Aquatic Animal Life**

The entire 20-acre site has been modified by human activity from one end to the other. There are no free-flowing streams, wetlands, forests, or other naturally occurring ecosystems here. Therefore, this topic was dismissed from further consideration in this document.

### **Endangered Species and other Listed Species of Concern (Special Status Species)**

The entire 20-acre site has been modified by human activity from one end to the other.

There are no free-flowing streams, wetlands, forests, special status species, or other naturally occurring ecosystems here. Therefore, this topic was dismissed from further consideration in this document.

### **SOCIALLY OR ECONOMICALLY DISADVANTAGED POPULATIONS**

Executive Order 12898 (“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”) requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. None of the alternatives considered in this document would result in any identifiable adverse health effects, and none of the impacts to the natural and physical environment would significantly and adversely affect any minority or low-income population or community. Therefore, environmental justice was dismissed as an impact topic.

### **PRIME AND UNIQUE AGRICULTURAL LANDS**

CEQ regulations require that federal agencies assess the effects of their actions on farmland soils classified by the U.S. Natural Resource Conservation Service (NRCS) as prime or unique. According to NRCS, none of the soils in the project area are classified as prime or unique. Therefore, this topic was dismissed from further consideration in this document.

### **INDIAN SACRED SITES**

Executive Order 130007 (“Indian Sacred Sites”) requires all federal agencies to determine whether their proposed actions would restrict access to or ceremonial use of

Indian sacred sites by Indian religious practitioners or adversely affect the integrity of such sacred sites. None of the alternatives considered in this document would restrict access to any sites sacred to American Indians or limit ceremonial use of any such sites. Therefore, this topic was dismissed from further consideration in this document.

## **ALTERNATIVE A (NO-ACTION ALTERNATIVE)**

### **NATURAL RESOURCES**

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

#### **Water Quality**

*Analysis.* The water quality analysis identified possible existing effects on water quality to Matanzas Bay (adjacent to the park boundary) associated with one existing parking area. Current conditions with the parking lot constructed of impervious materials and vehicles in the parking lot causes negligible adverse impacts on the water quality of Matanzas Bay. These impacts will continue under this alternative.

*Cumulative Impacts.* Actions outside the park, such as runoff from existing and new developments in the area and vehicle-related pollutants, would result in minor adverse effects on water quality due to increased surface runoff.

When the effects of actions by others are combined with impacts associated with Alternative A, the cumulative impacts would be minor, long-term, and adverse, primarily because of the effects of surface runoff from areas outside of the park.

#### **Floodplains**

*Analysis.* All of the park is within the 100-year floodplain. Under the No-Action Alternative, impacts would be associated with the continued need to maintain existing grounds, parking areas, and structures in the floodplain. These facilities are exempt from NPS policies on floodplain management (Director's Order 77-2; NPS Floodplain Procedures Manual 77-2). No new developments would occur in regulatory floodplains under this alternative. Therefore, only negligible adverse impacts would occur under the No-Action Alternative.

*Cumulative Impacts.* There are numerous developments on lands outside the park boundary that could affect the floodplain. These developments along with existing development have the potential to have moderate adverse impacts on the floodplain. The No-Action Alternative would not contribute to these cumulative impacts.

#### **Conclusion**

Existing conditions are causing negligible adverse impacts to water quality to Matanzas Bay. The No-Action Alternative would perpetuate these conditions. Cumulative impacts would include minor, long-term, and adverse impacts on water quality.

This alternative would result in negligible long-term adverse impacts on floodplain values for the park and surrounding areas. Cumulative impacts would include moderate adverse long-term effects on floodplains because of actions outside the park. This alternative's contribution to these impacts would be negligible.

This alternative would not result in major, adverse impacts to any natural resource, the

conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the natural resources of the park.

## **CULTURAL RESOURCES**

***Applicable Laws and Policies.*** The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

### **Archeological Resources**

***Analysis.*** Under the No-Action Alternative, archeological resources would continue to experience beneficial impacts due to the established resource protection measures for the identification and treatment of archeological resources that the NPS follows. At present, the park has had numerous archeological surveys completed to identify and define the archeological resources that can be found within the boundary of the park.

NPS staff would continue established resource protection measures for the identification and treatment of archeological resources on a case-by-case basis. The NPS would consult the SHPO regarding appropriate response actions and mitigation measures. Where potential impacts are identified, possible mitigation could include, but not be limited to, avoidance and protection, data recovery (evaluated as an adverse impact that would be undertaken as a last resort), and educational outreach programs such as informative onsite tours and presentations.

***Cumulative Impacts.*** Cumulative impacts on archeological resources are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include land disturbing activities such as development projects. Because of the urban environment, it is likely that numerous sites would continue to be impacted. If any of these actions require permits from state or federal agencies, recordation may be required. However, it is likely that archeological resources outside the park boundary will be destroyed without knowledge, causing an adverse effect. The City of St. Augustine's Archaeological Preservation Ordinance also provides another safeguard against impacts to archeological sites in the city. The ordinance states that any proposed major or minor disturbance which requires a building permit, a city utility permit or a city right-of-way permit shall be subject to a review of the proposed disturbance, before such disturbance takes place. The park will monitor land use proposals and changes to adjacent lands and work closely with the city's preservation commission to mitigate any potential negative impacts to park archeological resources and values.

When actions external to the park are considered in conjunction with this alternative, there would be a moderate, long-term, and adverse cumulative effect on archeological resources outside the park boundary, primarily because of development outside of the park that would impact sites without recordation.

### **Landscape**

***Analysis.*** Under the No-Action Alternative, the visitor parking lot would remain. The parking lot is located south of the fort and is a large visual intrusion into

the glaciis and fort green. Retaining the parking lot will result in a continued major adverse impact on historic views and the landscape.

The continued existence of the ticket booth, located in front of the entrance to the fort, would result in a moderate adverse impact.

**Cumulative Impacts.** Cumulative impacts on the landscape are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include a variety of land disturbing activities such as development projects. Because of the urban environment, it is likely that the landscape will continue to be impacted, causing an adverse effect.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on the landscape would be major, long-term, and adverse, primarily because of development outside of the park that would impact the landscape. The No-Action Alternative does not contribute to this adverse effect.

## Historic Structures

**Analysis.** Under the No-Action Alternative, historic structures would continue to be protected as required by law. However, no further direction for future use and interpretation of these structures would be developed and their educational potential would go unrealized. In addition, there could be deterioration and loss of the historic fabric as a result of natural deterioration and ongoing human interaction. An example would be casemates that are hidden by structures inserted into them. It is difficult to assess the fort's structure when it cannot be accessed.

This alternative would not include any major new development or major changes that would affect historic structures. The park staff would continue to implement established resource protection measures for the treatment of historic resources on a case by case basis. Where appropriate, NPS would consult the SHPO regarding response actions and mitigation measures. Treatment measures for historic resources would continue to conform to the *Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties*, 36 CFR section 68. However, as structures aged and more visitors to the park encountered historic structures, the potential would exist for increasing impacts.

**Cumulative Impacts.** Cumulative impacts on historic structures are considered on a region-wide basis because they extend beyond the park boundary.

Actions outside the park that could affect historic resources are the same as those identified for archeological resources. Specific impacts on historic resources outside the boundary are unknown. Although region-wide impacts have had a cumulative adverse effect on historic resources, they have not directly affected the structures eligible for listing on the National Register.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on historic structures would be moderate, long-term, and adverse, primarily because of the effects of non-compatible and non-historic uses of the casemates in the fort. The contribution of the No-Action Alternative to this adverse effect would be moderate.



## Conclusion

Under the No-Action Alternative, archeological resources would continue to experience beneficial impacts due to the protection the NPS offers. Established resource protection measures for the identification and treatment of archeological resources would continue on a case-by-case basis.

The existing parking lot and ticket booth facilities will remain in the No-Action Alternative. The impacts of these facilities on the landscape will continue to be moderate to major, long-term and adverse.

Adverse effects to historic resources would continue under the No-Action Alternative. Regionwide development activities would continue to have a cumulative adverse effect on historic resources. The No-Action Alternative would continue to have a moderate, adverse impact on the historic fabric of the fort.

This alternative would not result in major, adverse effects to cultural resources, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the cultural resources of the park.

## VISITOR USE AND EXPERIENCE

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

*Analysis.* Under the No-Action Alternative, all resources currently available to the public for visitor use would remain available in the future. Currently, the only limitations to visitor access are the fort's operating hours and four of the casemates that are used exclusively by park staff. These limitations on access would remain under the No-Action Alternative. The park's grounds are open around the clock.

Public education programs and exhibits would continue to be provided on a variety of resource-related subjects. General, informal outreach to the communities by park personnel would continue to assist in maintaining a dialogue concerning issues of mutual interest.

Continued use of some of the fort's casemates for non-compatible and non-historic uses and retention of the visitor parking lot would continue to result in a moderate, adverse, and long-term impact on visitor experience. The parking lot detracts from the visitor experience because of its visual intrusion into the landscape and safety hazards, although it does have a minor beneficial impact on visitor convenience.

Not addressing the need for a visitor center will result in a moderate to major, adverse, and long-term impact on visitor experience.

*Cumulative Impacts.* The extremely close proximity of the Spanish Quarter to the park has a great impact on visitor experience. Visitors usually explore the Quarter and visit the fort. The impacts of this on visitor experience are major and beneficial.

When the cumulative impacts of actions by others are combined with impacts associated with this alternative, there would be moderate long-term cumulative adverse impacts on visitor use and experience. The

contribution of the No-Action Alternative to this adverse effect would be moderate.

## **Conclusion**

The general character of the park would not change under the No-Action Alternative. The No-Action Alternative would continue to provide visitors with educational and self-exploration opportunities. The existing levels of visitor facilities would be continued with no plans for expanded visitor facilities. This alternative would have moderate to major, long-term and adverse effects on visitor use and experience.

## **SOCIOECONOMIC ENVIRONMENT**

### **Operation of the Park**

*Analysis.* Under the No-Action Alternative, the park would continue to be managed according to current policies. The No-Action Alternative would not result in the development of major new facilities at the park or an increase in employment. Therefore, there would be no direct incremental increase in impact on the local and regional economy from operation of the park, over and above what currently exists. However, nearby communities would continue to experience direct benefits of expenditures by NPS for supplies and by individual NPS employee purchases. Impacts would thus be minor, long-term, and beneficial.

*Cumulative Impacts.* The areas surrounding the park would be affected by continued regional growth. Development activities outside the boundary could result in more concentrated residential and commercial development near the park, and also stimulate growth in tourism. The effects of growth in the regional context could have both beneficial impacts, such as increased income and employment, and adverse impacts, such as increased cost of

housing and greater levels of pollution and congestion.

The No-Action Alternative would not result in significant increases in employment or expenditures in a regional context. Existing economic impacts arising from operation of the park would continue, with slight increases possible. In a regional context, the impact of this alternative would be minor, long-term, and beneficial.

### **Tourism and Recreation**

*Analysis.* Under the No-Action Alternative, people would continue to visit the local area in increasing numbers, and indirect benefits would continue to occur from visitors' spending for goods and services. Locally there are also many tourist and recreational attractions. The historic district of St. Augustine has many shops, restaurants, and lodging. Other local area attractions are Fort Matanzas, Flagler College, and historic churches. There are numerous museums, golf courses, marinas, opportunities for water sports, and 43 miles of beaches.

The local tourism industry would depend in part on, and benefit from, visitors attracted to the park, and the park would continue to be an important attraction in the area. However, the overall impact of the park on gateway communities or the local area would not change importantly under this alternative, with modest increases in visitation likely resulting in modest increases in visitor expenditures in the local area. Therefore, the No-Action Alternative would likely continue to have a moderate beneficial impact on the local tourism economy.

*Cumulative Impacts.* The regional tourism economy is very strong with many tourist destinations within a two-hour drive of St. Augustine. Among the top

destinations are Orlando, Daytona, with mile of wide beaches, the Daytona 500 race track, and Bike Week; and Cape Canaveral with the Kennedy Space Center, Canaveral National Seashore, and Merritt Island National Wildlife Refuge. The No-Action Alternative would have a minor effect on tourism to the region as a whole.

## Conclusion

Under this alternative, socioeconomic impacts to the local area resulting from the operation of the park would reflect existing conditions and hence would be minor, long-term, and beneficial.

The No-Action Alternative would have a moderate, beneficial, and long-term effect on the park's contribution to local tourism and recreation. In addition, it would continue to provide important economic benefits to the regional economy in the form of tourism expenditures. Therefore, it would have a minor, beneficial, and long-term impact on the regional tourism economy.

## OPERATIONAL EFFICIENCY

**Analysis.** Under the No-Action Alternative, the park would continue to be managed according to current policies. Park headquarters and maintenance are located in the same area within the park boundary. Since the entire site is only 22 acres, the proximity of the headquarters and maintenance to the resources and visitor areas work well and have a major beneficial impact on operational efficiency.

There are two ranger offices, a bookstore, and interpretive costume storage within the fort. These also work well in their current locations and have a moderate beneficial impact on operational efficiency.

Continued existence of the parking lot is costly in terms of equipment, materials, and labor and results in a minor, adverse, and long-term impact on maintenance activities at the site.

There is no visitor center or contact center for the park. Therefore, no consolidated space is available for visitor orientation and education. A "temporary", ticket booth, that has become permanent, is located outside the entrance of the fort. Interpretive displays in the casemates of the fort and ranger programs are held often. Not having a formal visitor center has a minor adverse impact on operational efficiency resulting from the lack of consolidated visitor orientation space.

Current resource needs and increasing levels of visitation have resulted in an unfulfilled staffing need causing minor to moderate adverse impacts.

Overall, the No-Action Alternative results in minor adverse impacts to operational efficiency.

**Cumulative Impacts.** Growth and development in the vicinity of the park and in the region as a whole would have a minor to moderate, long-term and adverse impact on operational efficiency. The most important impact would be increased visitation to the park, which would further stretch the ability of NPS staff to protect, preserve, and interpret park resources, and place greater demands on the limited existing visitor and staff facilities.

## Conclusion

The No-Action Alternative would result in no substantial change in operations of the park. Impacts to operational efficiency resulting from the retention the parking lot and work space in the fort and the absence of visitor contact facilities would be minor.

At current staffing levels and with increasing visitation, operational efficiency in providing for visitors and park resources would be increasingly diminished. Thus, the No-Action Alternative would result in impacts that are minor, long-term, and adverse.

### **CONSISTENCY WITH THE PLANS OF OTHERS**

Under the No-Action Alternative, park management would continue as before and there would be no new impacts on the plans of surrounding communities or other Area neighbors. Park management is active in the local community. It maintains a close working relationship with those historical associations, societies, and organizations that have legitimate goals in preserving and interpreting the historical values of the City of St. Augustine. The park continues to cooperate on issues of mutual interest and concern and works to strengthen its existing relationships with friends support groups, volunteers, and local government officials. Park management also cooperates with local and state government offices and community and civic organizations to maintain the scenic qualities and historic setting of the park. This coordination serves to heighten visitor enjoyment and appreciation of the park and its prominence in the overall historic setting of St. Augustine.

In recent years, there has been a growing recognition of the city's historic and architectural significance. As a result, much has been accomplished in recreating the city in conformance with original Spanish and English designs. Since 1960, more than 40 structures have been restored or reconstructed and several gardens reestablished. This effort has centered on the two blocks of St. George Street leading south from the City Gate. The city, business firms, private individuals, and a number of

organizations or agencies have contributed to this remarkable achievement. The No-Action Alternative for the park is consistent with these state and local goals.

### **IMPACTS ON ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL**

Although St. Augustine and the park are very walkable and shuttle services are currently available for a fee, private vehicles would continue to be the primary means of transportation to the park.

### **UNAVOIDABLE ADVERSE EFFECTS**

Unavoidable adverse impacts are defined as impacts that cannot be fully mitigated or avoided. This alternative would result in minor to major adverse impacts on cultural resources in some areas of the park due to human use. Only closing these resources to most all visitation would fully mitigate these impacts. Impacts would be expected to be minor in terms of overall loss.

### **IRRETRIEVABLE OR IRREVERSIBLE COMMITMENTS OF RESOURCES**

All facility development and use is considered essentially a permanent commitment of resources, although removal of facilities and site restoration has occurred and could still occur.

### **RELATIONSHIP BETWEEN SHORT TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

For the purposes of this discussion, short term is defined as the time span for which this GMP/EIS is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

Under the No-Action Alternative, no additional levels of action would be taken to manage visitor use. With increasing visitor use expected, there would be minor impacts to cultural resources in the park in some high use areas. Adverse impacts on the park's cultural resources, if not mitigated, could increase maintenance in the future hindering long-term productivity.

## **ALTERNATIVE B**

### **NATURAL RESOURCES**

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

#### **Water Quality**

*Analysis.* The analysis identified possible effects on water quality to Matanzas Bay (adjacent to the park boundary) associated with one parking area, the construction of a visitor center immediately south of the park headquarters, and the widening of sidewalks with areas for wayside exhibits.

Removal of approximately two thirds of the existing parking lot and reestablishment of the glaxis would reduce runoff into Matanzas Bay and would have a negligible long-term beneficial impact on water quality. The construction of a visitor center could produce negligible short-term adverse effects on water quality due to the construction process and negligible long-term adverse effects due to increasing the amount of impermeable surfaces.

Appropriate mitigation measures would be taken to reduce any effects. The widening of sidewalks with areas for wayside exhibits along State Road AIA will slightly increase the area of impermeable surface, therefore possibly increasing runoff resulting in negligible long-term adverse effects on water quality.

*Cumulative Impacts.* Actions outside the park, such as runoff from existing and new developments in the area and vehicle-related pollutants, would result in minor adverse effects on water quality due to increased surface runoff.

When the effects of actions by others are combined with impacts associated with Alternative B, the cumulative impacts would be minor, long-term, and adverse, primarily because of the effects of surface runoff from areas outside of the park.

#### **Floodplains**

*Analysis.* All of the park is within the 100-year floodplain. Under Alternative B, impacts would be associated with the continued need to maintain existing grounds, parking areas, and structures in the floodplain. These facilities are exempt from NPS policies on floodplain management (Director's Order 77-2; NPS Floodplain Procedures Manual 77-2). Changes to development include the construction of a visitor center immediately south of the headquarters and a reduction in the paved parking area. These changes would occur in regulatory floodplains. Although the reduction of paved parking will have a negligible beneficial impact on floodplains, the visitor center will have negligible adverse impacts. There is no alternative to placing structures in the floodplain.

*Cumulative Impacts.* There are numerous developments on lands outside the park boundary that could affect the floodplain. These developments along with existing development have the potential to have moderate adverse impacts on the floodplain.

When the effects of actions by others are combined with the impacts associated with Alternative B, the cumulative impacts would

be moderate, potentially long-term, and adverse.

## Conclusion

This alternative would result in negligible long-term adverse impacts to water quality to Matanzas Bay due to the offsetting impacts of reducing and adding areas of impermeable surfaces. Cumulative impacts would include minor, long-term, and adverse impacts on water quality.

This alternative would result in negligible long-term adverse impacts on floodplain values for the park and surrounding areas. Cumulative impacts would include moderate adverse long-term effects on floodplains because of actions outside the park. This alternative's contribution to these impacts would be negligible.

This alternative would not result in major, adverse impacts to any natural resource, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the natural resources of the park.

## CULTURAL RESOURCES

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

### Archeological Resources

*Analysis.* The analysis identified possible effects to archeological resources under Alternative B associated with the

construction of a visitor center immediately south of the park headquarters, the removal of two thirds of the existing paved parking lot, and the widening of the sidewalk with areas for wayside exhibits along State Road AIA.

Construction associated with a visitor center immediately south of the park headquarters could result in the disturbance of archeological resources. Removal of the existing parking lot surface and widening of the sidewalk could also disturb archeological resources.

Prior to any construction all applicable NEPA and Section 106 procedures would be followed to minimize impacts. NPS staff would continue established resource protection measures for the identification and treatment of archeological resources on a case-by-case basis. The NPS would consult the SHPO regarding appropriate response actions and mitigation measures. Where potential impacts are identified, possible mitigation could include, but not be limited to, avoidance and protection, data recovery (evaluated as an adverse impact that would be undertaken as a last resort), and educational outreach programs such as informative onsite tours and presentations. Despite potential impacts associated with construction, Alternative B would have beneficial impacts to archeological resources due to the established resource protection measures for the identification and treatment of such resources that the NPS follows.

*Cumulative Impacts.* Cumulative impacts on archeological resources are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include land disturbing activities such as development projects. Because of the urban

environment, it is likely that numerous sites would continue to be impacted. If any of these actions require permits from state or federal agencies, recordation may be required. However, it is likely that archeological resources outside the park boundary will be destroyed without knowledge, causing an adverse effect. The City of St. Augustine's Archaeological Preservation Ordinance also provides another safeguard against impacts to archeological sites in the city. The ordinance states that any proposed major or minor disturbance which requires a building permit, a city utility permit or a city right-of-way permit shall be subject to a review of the proposed disturbance, before such disturbance takes place. The park will monitor land use proposals and changes to adjacent lands and work closely with the city's preservation commission to mitigate any potential negative impacts to park archeological resources and values.

When actions external to the park are considered in conjunction with this alternative, there would be a moderate, long-term, and adverse cumulative effect on archeological resources outside the park boundary, primarily because of development outside of the park that would impact sites without recordation.

#### **Landscape**

***Analysis.*** Alternative B will reduce the size of the visitor parking lot by two thirds and reestablish the glacis and fort green in this area. The current parking lot is located south of the fort and is a large visual intrusion into the glacis and fort green. Reducing the size of the parking lot will have a major beneficial impact on historic views and the landscape.

This alternative will remove the ticket booth and relocate the ticket sales function to a more appropriate location. Removal of the

ticket booth would result in a moderate beneficial impact.

This alternative will construct a visitor center immediately south of the park headquarters. Construction of a visitor center will have minor adverse impacts to the landscape. The visitor center would be screened and designed in such a way as to be as non-visually intrusive area as possible.

Alternative B will also widen the sidewalks with areas for wayside exhibits along State Road AIA. This expansion will only have a minor adverse impact on the historic views and the landscape because of the low profile of the addition.

***Cumulative Impacts.*** Cumulative impacts on the landscape are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include a variety of land disturbing activities such as development projects. Because of the urban environment, it is likely that the landscape will continue to be impacted, causing an adverse effect.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on the landscape would be moderate, long-term, and adverse, primarily because of development outside of the park that would impact the landscape. Alternative B would make a major beneficial contribution to this adverse effect.

#### **Historic Structures**

***Analysis.*** Under Alternative B, historic structures would continue to be protected as required by law. Alternative B will remove three of seven non-compatible, non-historic uses of casemates from the

fort. These non-compatible, non-historic uses of the fort are structures that have been inserted into casemates disallowing appropriate inspections of the fort's structure. Removing these uses will allow for inspection of the fort's structure and preservation of this resource in a more aggressive way.

Where appropriate, NPS would consult the SHPO regarding response actions and mitigation measures. Treatment measures for historic resources would continue to conform to the *Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties*, 36 CFR section 68.

**Cumulative Impacts.** Cumulative impacts on historic structures are considered on a region-wide basis because they extend beyond the park boundary.

Actions outside the park that could affect historic resources are the same as those identified for archeological resources. Specific impacts on historic resources outside the boundary are unknown. Although region-wide impacts have had a cumulative adverse effect on historic resources, they have not directly affected the structures eligible for listing on the National Register.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on historic structures would be minor, long-term, and adverse, primarily because of the effects external actions. The contribution of Alternative B to this adverse effect would be minor and beneficial.

## Conclusion

Alternative B would have beneficial impacts to archeological resources. Established resource protection measures for the identification and treatment of

archeological resources would continue on a case-by-case basis.

The reduction of the size of the parking lot, the removal of the ticket booth, and the construction of a visitor center are important elements of Alternative B. The impacts of this alternative on the historic views and landscape of the park will be moderate to major, long-term and beneficial.

Regionwide development activities would continue to have a cumulative adverse effect on historic resources. Alternative B would have a minor beneficial impact on the historic resources of the park.

This alternative would not result in major, adverse effects to cultural resources, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the cultural resources of the park.

## VISITOR USE AND EXPERIENCE

**Applicable Laws and Policies.** The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

**Analysis.** Under Alternative B, the removal of three non-compatible non-historic uses from the fort's casemates would result in a moderate, beneficial and long-term impact on visitor use and experience. Visitors would be able to see and experience more of the fort and opening these casemates would allow for more interpretive displays.



Sidewalks along State Road AIA would be widened to accommodate benches and wayside exhibits resulting in minor, beneficial, and long-term impact on visitor use and experience.

The removal of two thirds of the parking lot from the site would result in a decrease in visitor convenience. The remaining one third of the parking area would be used to accommodate parking for persons with disabilities. This impact on visitor convenience would be minor, adverse, and long-term. However, the re-establishment of the fort green in two thirds of the area of the parking lot would result in a moderate, beneficial and long-term impact on visitor experience.

A new visitor center on site would have a moderate to major, beneficial, and long-term impact on visitor experience. A visitor center would allow for many visitor functions to be consolidated in one location and allow for the interpretive staff to more fully communicate the variety of stories and historical periods encompassed by the park.

***Cumulative Impacts.*** The extremely close proximity of the Spanish Quarter to the park has a great impact on visitor experience. Visitors usually explore the Quarter and visit the fort. The impacts of this on visitor experience are major and beneficial.

When the cumulative impacts of actions by others are combined with impacts associated with this alternative, there would be major long-term cumulative beneficial impacts on visitor use and experience. The contribution of Alternative B to this beneficial effect would be moderate to major.

## Conclusion

The general character of the park would change under Alternative B. Alternative B would provide visitors with additional interpretive opportunities as well as providing for a continuation of the glaxis. Visitor facilities would be expanded to include a visitor center. This alternative would have moderate to major, long-term and beneficial effects on visitor use and experience.

## SOCIOECONOMIC ENVIRONMENT

### Operation of the Park

***Analysis.*** Under Alternative B, the park would continue to be managed according to current policies. The construction of a visitor center immediately south of the park headquarters would provide temporary construction jobs and some permanent jobs associated with staffing and maintenance of the facility. In addition to the existing minor benefit, this would have a negligible beneficial impact on the local and regional economy.

The removal of two thirds of the parking lot from the site will result in some loss of revenue for both the City of St. Augustine and the park. For the City this revenue will be more than made up for by a multi-story parking garage being built behind the City's visitor information center. Resulting impacts to the local economy would be negligible, long-term, and adverse.

***Cumulative Impacts.*** The areas surrounding the park would be affected by continued regional growth. Development activities outside the boundary could result in more concentrated residential and commercial development near the park, and also stimulate growth in tourism. The effects of growth in the regional context could have both beneficial impacts, such as

increased income and employment, and adverse impacts, such as increased cost of housing and greater levels of pollution and congestion.

The Alternative B would not result in significant increases in employment or expenditures in a regional context. Existing economic impacts arising from operation of the park would continue, with slight increases possible. In a regional context, the impact of this alternative would be minor, long-term, and beneficial.

### **Tourism and Recreation**

**Analysis.** Under Alternative B, people would continue to visit the local area in increasing numbers, and indirect benefits would continue to occur from visitors' spending for goods and services. Locally there are also many tourist and recreational attractions. The historic district of St. Augustine has many shops, restaurants, and lodging. Other local area attractions are Fort Matanzas, Flagler College, and historic churches. There are numerous museums, golf courses, marinas, opportunities for water sports, and 43 miles of beaches.

The local tourism industry would depend in part on, and benefit from, visitors attracted to the park, and the park would continue to be an important attraction in the area. A new visitor center could result in a longer average visit. The longer visitors stay in the park, the more likely they are to need food and lodging in the community. However, the overall impact of the park on gateway communities or the local area would only change minimally under this alternative, with modest increases in visitation due to the new visitor center, likely resulting in modest increases in visitor expenditures in the local area. Therefore, Alternative B would likely continue to have a moderate beneficial impact on the local tourism economy.

**Cumulative Impacts.** The regional tourism economy is very strong with many tourist destinations within a two-hour drive of St. Augustine. Among the top destinations are Orlando, Daytona, with mile of wide beaches, the Daytona 500 race track, and Bike Week; and Cape Canaveral with the Kennedy Space Center, Canaveral National Seashore, and Merritt Island National Wildlife Refuge. Alternative B would have a minor effect on tourism to the region as a whole.

### **Conclusion**

Under this alternative, socioeconomic impacts to the local area resulting from the operation of the park and new visitor center would be minor, long-term, and beneficial.

Alternative B would have a moderate, beneficial, and long-term effect on the park's contribution to local tourism and recreation. In addition, it would continue to provide important economic benefits to the regional economy in the form of tourism expenditures. Therefore, it would have a minor, beneficial, and long-term impact on the regional tourism economy.

### **OPERATIONAL EFFICIENCY**

**Analysis.** Under Alternative B, the park headquarters and maintenance areas would remain in their current locations. A visitor center would be constructed immediately south of the park headquarters. A visitor center would result in a minor beneficial impact on operational efficiency mainly from having visitor orientation activities in a consolidated space. A new visitor center would also increase maintenance costs.

The two ranger offices and the interpretive costume storage will be removed from the fort and relocated to the new visitor center or the headquarters. Although the current location of the ranger offices is convenient,

relocating them with other administrative functions may result in better efficiency. This would have a negligible beneficial impact on operational efficiency.

Removal of two thirds of the parking lot would have a minor, beneficial, and long-term impact on maintenance at the site. Maintenance of a parking lot is more costly in terms of equipment, materials, and labor than that of a grassy lawn, which would require more frequent maintenance, but less costly and labor intensive.

A new visitor center, current resource needs, and increasing levels of visitation would result in an unfulfilled staffing need and increased staffing costs causing minor to moderate adverse impacts.

***Cumulative Impacts.*** Growth and development in the vicinity of the park and in the region as a whole would have a minor to moderate, long-term and adverse impact on operational efficiency. The most important impact would be increased visitation to the park, which would further stretch the ability of NPS staff to protect, preserve, and interpret park resources, and place greater demands on the limited existing visitor and staff facilities. The new visitor center would help alleviate the effects of increasing visitation if adequate staff could be provided.

## **Conclusion**

Beneficial impacts to operational efficiency resulting from a new visitor center and the benefits of reducing the size of the parking lot would be minor when additional staffing needs are taken into consideration. Thus, Alternative B would result in impacts that are moderate, long-term, and beneficial to operational efficiency.

## **CONSISTENCY WITH THE PLANS OF OTHERS**

Under Alternative B, park management would change to enhance resource protection and improve visitor opportunities. There would be only beneficial impacts on the plans of surrounding communities or other area neighbors. The introduction of an on-site visitor center would serve to communicate the ties between the park and the city of St. Augustine. Although on-site parking will be eliminated (except for those with disabilities), possibly having an impact on customers of local businesses, a new parking garage with proposed shuttle service is being constructed nearby which should alleviate most inconveniences.

Park management is active in the local community. It maintains a close working relationship with those historical associations, societies, and organizations that have legitimate goals in preserving and interpreting the historical values of the City of St. Augustine. The park continues to cooperate on issues of mutual interest and concern and works to strengthen its existing relationships with friends support groups, volunteers, and local government officials. Park management also cooperates with local and state government offices and community and civic organizations to maintain the scenic qualities and historic setting of the park. This coordination serves to heighten visitor enjoyment and appreciation of the park and its prominence in the overall historic setting of St. Augustine.

In recent years, there has been a growing recognition of the city's historic and architectural significance. As a result, much has been accomplished in recreating the city in conformance with original Spanish and English designs. Since 1960, more than 40 structures have been restored or

reconstructed and several gardens reestablished. This effort has centered on the two blocks of St. George Street leading south from the City Gate. The city, business firms, private individuals, and a number of organizations or agencies have contributed to this remarkable achievement. Alternative B for the park is consistent with these state and local goals.

### **IMPACTS ON ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL**

Although St. Augustine and the park are very walkable and shuttle services are currently available for a fee, private vehicles would continue to be the primary means of transportation to the park.

Any new construction that the NPS initiates will meet all pertinent building codes to aid in energy conservation.

### **UNAVOIDABLE ADVERSE EFFECTS**

Unavoidable adverse impacts are defined as impacts that cannot be fully mitigated or avoided. This alternative would result in minor to major adverse impacts on cultural resources in some areas of the park due to human use. Only closing these resources to most all visitation would fully mitigate these impacts. Impacts would be expected to be minor in terms of overall loss.

### **IRRETRIEVABLE OR IRREVERSIBLE COMMITMENTS OF RESOURCES**

All facility development and use is considered essentially a permanent commitment of resources, although removal of facilities and site restoration has occurred and could still occur. New facilities would be developed on sites that have negligible resource value, which would be specifically considered during detailed implementation planning.

### **RELATIONSHIP BETWEEN SHORT TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

For the purposes of this discussion, short term is defined as the time span for which this GMP/EIS is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

The resource prescriptions included in the management units, along with required management, are intended to ensure the achievement and maintenance of the purposes for which the park was established. All use and development would occur in the context of sustainable resource conditions that, in turn, permit sustained levels of visitor use and satisfaction.

Under Alternative B, a number of new actions would be taken to manage visitor use, including constructing a new visitor center. With increasing visitor use expected, impacts to cultural resources in the park would be more aptly prevented by the orientation and educational opportunities that a visitor center provides. This would reduce maintenance and enhance long-term productivity.

### **ALTERNATIVE C (ENVIRONMENTALLY PREFERRED ALTERNATIVE)**

#### **NATURAL RESOURCES**

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

#### **Water Quality**

*Analysis.* The analysis identified possible effects on water quality to Matanzas Bay (adjacent to the park boundary) associated

with one parking area, the construction of a visitor center outside the park's current boundary, and the widening of sidewalks.

Removal of approximately three quarters of the existing parking lot and reestablishment of the glaciis would reduce runoff into Matanzas Bay and would have a negligible long-term beneficial impact on water quality. The construction of a visitor center could produce negligible short-term adverse effects on water quality due to the construction process. Appropriate mitigation measures would be taken to reduce any effects. The widening of sidewalks along State Road AIA will slightly increase the area of impermeable surface, therefore possibly increasing runoff resulting in negligible long-term adverse effects on water quality.

***Cumulative Impacts.*** Actions outside the park, such as runoff from existing and new developments in the area and vehicle-related pollutants, would result in minor adverse effects on water quality due to increased surface runoff.

When the effects of actions by others are combined with impacts associated with Alternative C, the cumulative impacts would be minor, long-term, and adverse, primarily because of the effects of surface runoff from areas outside of the park.

## **Floodplains**

***Analysis.*** All of the park is within the 100-year floodplain. Under Alternative C, impacts would be associated with the continued need to maintain existing grounds, parking areas, and structures in the floodplain. These facilities are exempt from NPS policies on floodplain management (Director's Order 77-2; NPS Floodplain Procedures Manual 77-2). Changes to development include the construction of a visitor center outside the current park

boundary and a reduction in the paved parking area. These changes would occur in regulatory floodplains. Although the reduction of paved parking will have a negligible beneficial impact on floodplains, the visitor center will have minor adverse impacts. There is no alternative to placing structures in the floodplain.

***Cumulative Impacts.*** There are numerous developments on lands outside the park boundary that could affect the floodplain. These developments along with existing development have the potential to have moderate adverse impacts on the floodplain.

When the effects of actions by others are combined with the impacts associated with Alternative C, the cumulative impacts would be moderate, potentially long-term, and adverse.

## **Conclusion**

This alternative would result in negligible beneficial long-term impacts to water quality to Matanzas Bay due to reducing the area of impermeable surfaces and therefore reducing the amount of runoff. Cumulative impacts would include minor, long-term, and adverse impacts on water quality.

This alternative would result in minor long-term adverse impacts on floodplain values for the park and surrounding areas. Cumulative impacts would include moderate adverse long-term effects on floodplains because of actions outside the park. This alternative's contribution to these impacts would be minor.

This alternative would not result in major, adverse impacts to any natural resource, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the

park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the natural resources of the park.

## **CULTURAL RESOURCES**

***Applicable Laws and Policies.*** The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

### **Archeological Resources**

***Analysis.*** The analysis identified possible effects to archeological resources under Alternative C associated with the construction of a visitor center outside the park boundary, the removal of three quarters of the existing paved parking lot, and the widening of the sidewalk along State Road AIA.

Construction associated with a visitor center outside the current park boundary could result in the disturbance of archeological resources even though the site has been previously disturbed. Removal of the existing parking lot surface and widening of the sidewalk could also disturb archeological resources.

Prior to any construction all applicable NEPA and Section 106 procedures would be followed to minimize impacts. NPS staff would continue established resource protection measures for the identification and treatment of archeological resources on a case-by-case basis. The NPS would consult the SHPO regarding appropriate response actions and mitigation measures. Where potential impacts are identified, possible mitigation could include, but not be limited to, avoidance and protection, data recovery (evaluated as an adverse

impact that would be undertaken as a last resort), and educational outreach programs such as informative onsite tours and presentations. Despite potential impacts associated with construction, Alternative C would have beneficial impacts to archeological resources due to the established resource protection measures for the identification and treatment of such resources that the NPS follows.

***Cumulative Impacts.*** Cumulative impacts on archeological resources are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include land disturbing activities such as development projects. Because of the urban environment, it is likely that numerous sites would continue to be impacted. If any of these actions require permits from state or federal agencies, recordation may be required. However, it is likely that archeological resources outside the park boundary will be destroyed without knowledge, causing an adverse effect. The City of St. Augustine's Archaeological Preservation Ordinance also provides another safeguard against impacts to archeological sites in the city. The ordinance states that any proposed major or minor disturbance which requires a building permit, a city utility permit or a city right-of-way permit shall be subject to a review of the proposed disturbance, before such disturbance takes place. The park will monitor land use proposals and changes to adjacent lands and work closely with the city's preservation commission to mitigate any potential negative impacts to park archeological resources and values.

When actions external to the park are considered in conjunction with this alternative, there would be a moderate, long-term, and adverse cumulative effect on

archeological resources outside the park boundary, primarily because of development outside of the park that would impact sites without recordation.

## **Landscape**

**Analysis.** Alternative C will reduce the size of the visitor parking lot by three quarters and reestablish the glacis and fort green in this area. The current parking lot is located south of the fort and is a large visual intrusion into the glacis and fort green. Reducing the size of the parking lot will make a major beneficial impact on historic views and the landscape.

This alternative will remove the ticket booth and relocate the ticket sales function to a more appropriate location. Removal of the ticket booth would result in a moderate beneficial impact.

This alternative will construct a visitor center outside the current park boundary possibly at the Mary Peck house site across State Road AIA. Construction of a visitor center will have negligible adverse impacts to the landscape. The location of the visitor center will be located amongst many other existing buildings in the Spanish Quarter.

Alternative C will also slightly widen the sidewalks along State Road AIA. This expansion will only have a minor adverse impact on the historic views and the landscape because of the low profile of the addition.

**Cumulative Impacts.** Cumulative impacts on the landscape are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include a variety of land disturbing activities such as development projects. Because of the urban

environment, it is likely that the landscape will continue to be impacted, causing an adverse effect.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on the landscape would be moderate, long-term, and adverse, primarily because of development outside of the park that would impact the landscape. Alternative C would make a major beneficial contribution to this adverse effect.

## **Historic Structures**

**Analysis.** Under Alternative C, historic structures would continue to be protected as required by law. Alternative C will remove two of seven non-compatible, non-historic uses of casemates from the fort. These non-compatible, non-historic uses of the fort are structures that have been inserted into casemates disallowing appropriate inspections of the fort's structure. Removing these uses will allow for inspection of the fort's structure and preservation of this resource in a more aggressive way.

Where appropriate, NPS would consult the SHPO regarding response actions and mitigation measures. Treatment measures for historic resources would continue to conform to the *Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties*, 36 CFR section 68.

**Cumulative Impacts.** Cumulative impacts on historic structures are considered on a region-wide basis because they extend beyond the park boundary.

Actions outside the park that could affect historic resources are the same as those identified for archeological resources. Specific impacts on historic resources outside the boundary are unknown.

Although region-wide impacts have had a cumulative adverse effect on historic resources, they have not directly affected the structures eligible for listing on the National Register.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on historic structures would be minor, long-term, and adverse, primarily because of the effects external actions. The contribution of Alternative C to this adverse effect would be minor and beneficial.

## Conclusion

Alternative C would have beneficial impacts on archeological resources because of the protection that the NPS provides to these resources. Established resource protection measures for the identification and treatment of archeological resources would continue on a case-by-case basis.

The reduction of the size of the parking lot and the removal of the ticket booth are important elements of Alternative C. The impacts of this alternative on the historic views and landscape of the park will be major, long-term and beneficial.

Regionwide development activities would continue to have a cumulative adverse effect on historic resources. Alternative C would have a minor beneficial impact on the historic resources of the park.

This alternative would not result in major, adverse effects to cultural resources, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental

impacts associated with this alternative would not result in impairment to the cultural resources of the park.

## VISITOR USE AND EXPERIENCE

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

*Analysis.* Under Alternative C, the removal of two non-compatible non-historic uses from the fort's casemates would result in a minor, beneficial and long-term impact on visitor use and experience. Visitors would be able to see and experience more of the fort and opening these casemates would allow for more interpretive displays.

Sidewalks along State Road AIA would be slightly widened for safety issues resulting in negligible, beneficial, and long-term impact on visitor use and experience.

The removal of three quarters of the parking lot from the site would result in a decrease in visitor convenience. The remaining one third of the parking area would be used to accommodate parking for persons with disabilities. This impact on visitor convenience would be minor, adverse, and long-term. Although, the re-establishment of the fort green in three quarters of the area of the parking lot would result in a moderate, beneficial and long-term impact on visitor experience.

A new visitor center located outside the current boundary possibly at the Mary Peck house site would have a moderate to major, beneficial, and long-term impact on visitor experience. A visitor center would allow for many visitor functions to be consolidated in one location and allow for the interpretive staff to more fully communicate the variety of stories and historical periods encompassed by the park.



**Cumulative Impacts.** The extremely close proximity of the Spanish Quarter to the park has a great impact on visitor experience. Visitors usually explore the Quarter and visit the fort. The impacts of this on visitor experience are major and beneficial. Constructing a visitor center in this historic district will only enhance the positive experiences.

When the cumulative impacts of actions by others are combined with impacts associated with this alternative, there would be major long-term cumulative beneficial impacts on visitor use and experience. The contribution of Alternative C to this beneficial effect would be moderate to major.

## **Conclusion**

The general character of the park would change under Alternative C. Alternative C would provide visitors with additional interpretive opportunities as well as providing for a continuation of the glaxis. Visitor facilities would be expanded to include a visitor center. This alternative would have major, long-term and beneficial effects on visitor use and experience.

## **SOCIOECONOMIC ENVIRONMENT**

### **Operation of the Park**

**Analysis.** Under Alternative C, the park would continue to be managed according to current policies. The construction of a visitor center outside the current park boundaries possibly at the Mary Peck house site would provide temporary construction jobs and some permanent jobs associated with staffing and maintenance of the facility. In addition to the existing minor benefit, this would have a negligible beneficial impact on the local and regional economy.

The removal of three fourths of the parking lot from the site will result in some loss of revenue for both the City of St. Augustine and the park. For the City this revenue will be more than made up for by a multi-story parking garage being built behind the City's visitor information center. Resulting impacts to the local economy would be negligible, long-term, and adverse.

**Cumulative Impacts.** The areas surrounding the park would be affected by continued regional growth. Development activities outside the boundary could result in more concentrated residential and commercial development near the park, and also stimulate growth in tourism. The effects of growth in the regional context could have both beneficial impacts, such as increased income and employment, and adverse impacts, such as increased cost of housing and greater levels of pollution and congestion.

The Alternative C would not result in significant increases in employment or expenditures in a regional context. Existing economic impacts arising from operation of the park would continue, with slight increases possible. In a regional context, the impact of this alternative would be minor, long-term, and beneficial.

### **Tourism and Recreation**

**Analysis.** Under Alternative C, people would continue to visit the local area in increasing numbers, and indirect benefits would continue to occur from visitors' spending for goods and services. Locally there are also many tourist and recreational attractions. The historic district of St. Augustine has many shops, restaurants, and lodging. Other local area attractions are Fort Matanzas, Flagler College, and historic churches. There are numerous museums, golf courses, marinas, opportunities for water sports, and 43 miles of beaches.

The local tourism industry would depend in part on, and benefit from, visitors attracted to the park, and the park would continue to be an important attraction in the area. A new visitor center could result in a longer average visit. The longer visitors stay in the park, the more likely they are to need food and lodging in the community. However, the overall impact of the park on gateway communities or the local area would only change minimally under this alternative, with modest increases in visitation due to the new visitor center, likely resulting in modest increases in visitor expenditures in the local area. Therefore, Alternative C would likely continue to have a moderate beneficial impact on the local tourism economy.

**Cumulative Impacts.** The regional tourism economy is very strong with many tourist destinations within a two-hour drive of St. Augustine. Among the top destinations are Orlando, Daytona, with mile of wide beaches, the Daytona 500 race track, and Bike Week; and Cape Canaveral with the Kennedy Space Center, Canaveral National Seashore, and Merritt Island National Wildlife Refuge. Alternative C would have a minor effect on tourism to the region as a whole.

## Conclusion

Under this alternative, socioeconomic impacts to the local area resulting from the operation of the park and new visitor center would be minor, long-term, and beneficial.

Alternative C would have a moderate, beneficial, and long-term effect on the park's contribution to local tourism and recreation. In addition, it would continue to provide important economic benefits to the regional economy in the form of tourism expenditures. Therefore, it would have a minor, beneficial, and long-term impact on the regional tourism economy.

## OPERATIONAL EFFICIENCY

**Analysis.** Under Alternative C, the park headquarters and maintenance remain at their current location within park boundary and adjacent to each other. Since the entire site is only 22 acres, the proximity of the headquarters and maintenance to the resources and visitor areas work well and have a major beneficial impact on operational efficiency.

A visitor center will be constructed outside the current park boundary possibly at the Mary Peck house site. Having a visitor center and at this location would result in a minor beneficial impact mainly from having visitor orientation activities in a consolidated space. However, a new visitor center would increase maintenance and staffing needs and costs.

Two ranger offices will be removed from the fort and relocated to the new visitor center. Although the current location of the ranger offices is convenient, relocating them with other administrative functions may result in better efficiency. This would have a negligible beneficial impact on operational efficiency.

Removal of three quarters of the parking lot would have a minor, beneficial, and long-term impact on maintenance at the site. Maintenance of a parking lot is more costly in terms of equipment, materials, and labor than that of a grassy lawn, which would require more frequent maintenance, but less costly and labor intensive.

A new visitor center, current resource needs, and increasing levels of visitation would result in an unfulfilled staffing need and increased staffing costs causing minor to moderate adverse impacts.

**Cumulative Impacts.** Growth and development in the vicinity of the park and

in the region as a whole would have a minor to moderate, long-term and adverse impact on operational efficiency. The most important impact would be increased visitation to the park, which would further stretch the ability of NPS staff to protect, preserve, and interpret park resources, and place greater demands on the limited existing visitor and staff facilities. The new visitor center would help alleviate the effects of increasing visitation if adequate staff could be provided.

## **Conclusion**

The benefits of reducing the size of the parking lot and introducing a visitor center help to offset these impacts. Thus, Alternative C would result in impacts that are minor to moderate, long-term, and beneficial to operational efficiency.

## **CONSISTENCY WITH THE PLANS OF OTHERS**

Under Alternative C, park management would change to enhance resource protection and improve visitor opportunities. There would be only beneficial impacts on the plans of surrounding communities or other area neighbors. The introduction of a visitor center outside the current park boundary possibly at the Mary Peck house site would serve to communicate the ties between the park and the city of St. Augustine. Although on-site parking will be eliminated (except for those with disabilities), possibly having an impact on customers of local businesses, a new parking garage with proposed shuttle service is being constructed nearby which should alleviate most inconveniences.

Park management is active in the local community. It maintains a close working relationship with those historical associations, societies, and organizations that have legitimate goals in preserving and

interpreting the historical values of the City of St. Augustine. The park continues to cooperate on issues of mutual interest and concern and works to strengthen its existing relationships with friends support groups, volunteers, and local government officials. Park management also cooperates with local and state government offices and community and civic organizations to maintain the scenic qualities and historic setting of the park. This coordination serves to heighten visitor enjoyment and appreciation of the park and its prominence in the overall historic setting of St. Augustine.

In recent years, there has been a growing recognition of the city's historic and architectural significance. As a result, much has been accomplished in recreating the city in conformance with original Spanish and English designs. Since 1960, more than 40 structures have been restored or reconstructed and several gardens reestablished. This effort has centered on the two blocks of St. George Street leading south from the City Gate. The city, business firms, private individuals, and a number of organizations or agencies have contributed to this remarkable achievement. Alternative C for the park is consistent with these state and local goals.

## **IMPACTS ON ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL**

Although St. Augustine and the park are very walkable and shuttle services are currently available for a fee, private vehicles would continue to be the primary means of transportation to the park.

Any new construction that the NPS initiates will meet all pertinent building codes to aid in energy conservation.

## UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse impacts are defined as impacts that cannot be fully mitigated or avoided. This alternative would result in minor to major adverse impacts on cultural resources in some areas of the park due to human use. Only closing these resources to most all visitation would fully mitigate these impacts. Impacts would be expected to be minor in terms of overall loss.

## IRRETRIEVABLE OR IRREVERSIBLE COMMITMENTS OF RESOURCES

All facility development and use is considered essentially a permanent commitment of resources, although removal of facilities and site restoration has occurred and could still occur. New facilities would be developed on sites that have negligible resource value, which would be specifically considered during detailed implementation planning.

## RELATIONSHIP BETWEEN SHORT TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

For the purposes of this discussion, short term is defined as the time span for which this GMP/EIS is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

The resource prescriptions included in the management units, along with required management, are intended to ensure the achievement and maintenance of the purposes for which the park was established. All use and development would occur in the context of sustainable resource conditions that, in turn, permit sustained levels of visitor use and satisfaction.

Under Alternative C, a number of new actions would be taken to manage visitor use, including constructing a new visitor center. With increasing visitor use expected, impacts to cultural resources in the park would be more aptly prevented by the orientation and educational opportunities that a visitor center provides. This would reduce maintenance and enhance long-term productivity.

## ALTERNATIVE D (AGENCY PREFERRED ALTERNATIVE)

### NATURAL RESOURCES

*Applicable Laws and Policies.* The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

### Water Quality

*Analysis.* The water quality analysis identified possible existing effects on water quality to Matanzas Bay (adjacent to the park boundary) associated with one existing parking area. Current conditions with the parking lot constructed of impervious materials and vehicles in the parking lot causes negligible adverse impacts on the water quality of Matanzas Bay. These impacts will continue under this alternative. The construction of a structure for relocated administrative functions could produce negligible short-term adverse effects on water quality due to the construction process. Appropriate mitigation measures would be taken to reduce any effects.

*Cumulative Impacts.* Actions outside the park, such as runoff from existing and new developments in the area and vehicle-related pollutants, would result in minor adverse effects on water quality due to increased surface runoff.

When the effects of actions by others are combined with impacts associated with Alternative D, the cumulative impacts would be minor, long-term, and adverse, primarily because of the effects of surface runoff from areas outside of the park.

## **Floodplains**

**Analysis.** All of the park is within the 100-year floodplain. Under Alternative D, impacts would be associated with the continued need to maintain existing grounds, parking areas, and structures in the floodplain. These facilities are exempt from NPS policies on floodplain management (Director's Order 77-2; NPS Floodplain Procedures Manual 77-2). No new developments would occur in regulatory floodplains under this alternative. Therefore, only negligible adverse impacts would occur under the Alternative D. Changes to development include the construction of a structure for relocated administrative functions. This change would occur in regulatory floodplains and will have minor adverse impacts. There is no alternative to placing structures in the floodplain.

**Cumulative Impacts.** There are numerous developments on lands outside the park boundary that could affect the floodplain. These developments along with existing development have the potential to have moderate adverse impacts on the floodplain. The Alternative D would not contribute to these cumulative impacts.

## **Conclusion**

Existing conditions are causing negligible adverse impacts to water quality to Matanzas Bay. Alternative D would perpetuate these conditions. Cumulative impacts would include minor, long-term, and adverse impacts on water quality.

This alternative would result in negligible long-term adverse impacts on floodplain values for the park and surrounding areas. Cumulative impacts would include moderate adverse long-term effects on floodplains because of actions outside the park. This alternative's contribution to these impacts would be negligible.

This alternative would not result in major, adverse impacts to any natural resource, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the natural resources of the park.

## **CULTURAL RESOURCES**

**Applicable Laws and Policies.** The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

### **Archeological Resources**

**Analysis.** The analysis identified possible effects to archeological resources under Alternative D associated with the widening of the sidewalk along State Road AIA.

Widening of the sidewalk and construction of a structure for relocated administrative functions could result in the disturbance of archeological resources.

Prior to any construction all applicable NEPA and Section 106 procedures would be followed to minimize impacts. NPS staff would continue established resource protection measures for the identification and treatment of archeological resources on

a case-by-case basis. The NPS would consult the SHPO regarding appropriate response actions and mitigation measures. Where potential impacts are identified, possible mitigation could include, but not be limited to, avoidance and protection, data recovery (evaluated as an adverse impact that would be undertaken as a last resort), and educational outreach programs such as informative onsite tours and presentations. Despite potential impacts associated with construction, Alternative D would have beneficial impacts to archeological resources due to the established resource protection measures for the identification and treatment of such resources that the NPS follows.

**Cumulative Impacts.** Cumulative impacts on archeological resources are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include land disturbing activities such as development projects. Because of the urban environment, it is likely that numerous sites would continue to be impacted. If any of these actions require permits from state or federal agencies, recordation may be required. However, it is likely that archeological resources outside the park boundary will be destroyed without knowledge, causing an adverse effect. The City of St. Augustine's Archaeological Preservation Ordinance also provides another safeguard against impacts to archeological sites in the city. The ordinance states that any proposed major or minor disturbance which requires a building permit, a city utility permit or a city right-of-way permit shall be subject to a review of the proposed disturbance, before such disturbance takes place. The park will monitor land use proposals and changes to adjacent lands and work closely with the city's preservation commission to mitigate

any potential negative impacts to park archeological resources and values.

When actions external to the park are considered in conjunction with this alternative, there would be a moderate, long-term, and adverse cumulative effect on archeological resources outside the park boundary, primarily because of development outside of the park that would impact sites without recordation.

### **Landscape**

**Analysis.** Under Alternative D, the visitor parking lot would remain. The parking lot is located south of the fort and is a large visual intrusion into the glaciis and fort green. Retaining the parking lot will result in a continued major adverse impact on historic views and the landscape.

This alternative will remove the ticket booth and relocate the ticket sales function to a more appropriate location. Removal of the ticket booth would result in a moderate beneficial impact.

This alternative will construct a structure for relocated administrative functions. This structure will have negligible adverse impacts to the landscape.

**Cumulative Impacts.** Cumulative impacts on the landscapes are considered on a region-wide basis because historic activity in the park region was not limited to the lands within the park boundary.

Actions outside the park include a variety of land disturbing activities such as development projects. Because of the urban environment, it is likely that the landscape will continue to be impacted, causing an adverse effect.

When other actions external to the park are considered in conjunction with this alternative, the cumulative impacts on the

landscape would be major, long-term, and adverse, primarily because of development outside of the park that would impact the landscape. Alternative D would make a major adverse contribution to this adverse effect.

## Historic Structures

**Analysis.** Under Alternative D, historic structures would continue to be protected as required by law. Alternative D will remove three of seven non-compatible, non-historic uses of casemates from the fort. These non-compatible, non-historic uses of the fort are structures that have been inserted into casemates disallowing appropriate inspections of the fort's structure. Removing these uses will allow for inspection of the fort's structure and preservation of this resource in a more aggressive way.

Where appropriate, NPS would consult the SHPO regarding response actions and mitigation measures. Treatment measures for historic resources would continue to conform to the *Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties*, 36 CFR section 68.

**Cumulative Impacts.** Cumulative impacts on historic structures are considered on a region-wide basis because they extend beyond the park boundary.

Actions outside the park that could affect historic resources are the same as those identified for archeological resources. Specific impacts on historic resources outside the boundary are unknown. Although region-wide impacts have had a cumulative adverse effect on historic resources, they have not directly affected the structures eligible for listing on the National Register.

When other actions external to the park are considered in conjunction with this

alternative, the cumulative impacts on historic structures would be minor, long-term, and adverse, primarily because of the effects external actions. The contribution of Alternative D to this adverse effect would be minor and beneficial.

## Conclusion

Alternative D would have beneficial impacts to archeological resources because of the protection that the NPS provides to these resources. Established resource protection measures for the identification and treatment of archeological resources would continue on a case-by-case basis.

By retaining the parking lot and removing the ticket booth, the impacts of this alternative on the historic views and landscape of the park will continue to be major, long-term and adverse.

Regionwide development activities would continue to have a cumulative adverse effect on historic resources. Alternative D would have a minor beneficial impact on the historic resources of the park.

This alternative would not result in major, adverse effects to cultural resources, the conservation of which is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for its use and enjoyment; or (3) identified as a goal in this plan or other relevant NPS planning document. Therefore, the environmental impacts associated with this alternative would not result in impairment to the cultural resources of the park.

## VISITOR USE AND EXPERIENCE

**Applicable Laws and Policies.** The laws, regulations, and policies that govern NPS actions with respect to this impact topic can be found in Appendix A.

**Analysis.** Under Alternative D, retention of the visitor parking lot would result in a moderate, adverse, and long-term impact on visitor experience. The parking lot detracts from the visitor experience because of its visual intrusion into the landscape and safety hazards, although it does have a minor beneficial impact on visitor convenience.

Under Alternative D, the removal of three non-compatible non-historic uses from the fort's casemates would result in a minor, beneficial and long-term impact on visitor use and experience. Visitors would be able to see and experience more of the fort and opening these casemates would allow for more interpretive displays.

Not addressing the need for a visitor center will result in a moderate to major, adverse, and long-term impact on visitor experience.

**Cumulative Impacts.** The extremely close proximity of the Spanish Quarter to the park has a great impact on visitor experience. Visitors usually explore the Quarter and visit the fort. The impacts of this on visitor experience are major and beneficial. Constructing a visitor center in this historic district will only enhance the positive experiences.

When the cumulative impacts of actions by others are combined with impacts associated with this alternative, there would be minor long-term cumulative adverse impacts on visitor use and experience. The contribution of Alternative D to this adverse effect would be moderate to major.

## **Conclusion**

The general character of the park would not change under Alternative D. Alternative D

would not address the need for a visitor center and would retain the visitor parking lot. This alternative would have moderate to major, long-term and adverse effects on visitor use and experience.

## **SOCIOECONOMIC ENVIRONMENT**

### **Operation of the Park**

**Analysis.** Alternative D would not result in the development of major new facilities at the park or an increase in employment. Therefore, there would be no direct incremental increase in impact on the local and regional economy from operation of the park, over and above what currently exists. However, nearby communities would continue to experience direct benefits of expenditures by NPS for supplies and by individual NPS employee purchases. Impacts would thus be minor, long-term, and beneficial.

The parking lot will remain and will result in some revenue for both the City of St. Augustine and the park. Resulting impacts to the local economy would be negligible, long-term, and beneficial.

**Cumulative Impacts.** The areas surrounding the park would be affected by continued regional growth. Development activities outside the boundary could result in more concentrated residential and commercial development near the park, and also stimulate growth in tourism. The effects of growth in the regional context could have both beneficial impacts, such as increased income and employment, and adverse impacts, such as increased cost of housing and greater levels of pollution and congestion.

The Alternative D would not result in significant increases in employment or expenditures in a regional context. Existing economic impacts arising from operation of the park would continue, with slight



increases possible. In a regional context, the impact of this alternative would be minor, long-term, and beneficial.

## **Tourism and Recreation**

**Analysis.** Under Alternative D, people would continue to visit the local area in increasing numbers, and indirect benefits would continue to occur from visitors' spending for goods and services. Locally there are also many tourist and recreational attractions. The historic district of St. Augustine has many shops, restaurants, and lodging. Other local area attractions are Fort Matanzas, Flagler College, and historic churches. There are numerous museums, golf courses, marinas, opportunities for water sports, and 43 miles of beaches.

The local tourism industry would depend in part on, and benefit from, visitors attracted to the park, and the park would continue to be an important attraction in the area. The overall impact of the park on gateway communities or the local area would not change under this alternative. Therefore, Alternative D would likely continue to have a moderate beneficial impact on the local tourism economy.

**Cumulative Impacts.** The regional tourism economy is very strong with many tourist destinations within a two-hour drive of St. Augustine. Among the top destinations are Orlando, Daytona, with mile of wide beaches, the Daytona 500 race track, and Bike Week; and Cape Canaveral with the Kennedy Space Center, Canaveral National Seashore, and Merritt Island National Wildlife Refuge. Alternative D would have a minor effect on tourism to the region as a whole.

## **Conclusion**

Under this alternative, socioeconomic impacts to the local area resulting from the

operation of the park would be negligible, long-term, and beneficial.

Alternative D would have a moderate, beneficial, and long-term effect on the park's contribution to local tourism and recreation. In addition, it would continue to provide important economic benefits to the regional economy in the form of tourism expenditures. Therefore, it would have a minor, beneficial, and long-term impact on the regional tourism economy.

## **OPERATIONAL EFFICIENCY**

**Analysis.** Under Alternative D, the park headquarters and maintenance remain at their current location within park boundary and adjacent to each other. Since the entire site is only 22 acres, the proximity of the headquarters and maintenance to the resources and visitor areas work well and have a major beneficial impact on operational efficiency.

However, a new visitor center would increase maintenance and staffing needs and costs. The two ranger offices and the interpretive costume storage will be removed from the fort and relocated to a new structure in the Visitor Services Zone. Although the current location of the ranger offices is convenient, relocating them with other administrative functions may result in better efficiency. This would have a negligible beneficial impact on operational efficiency. However, a new structure would increase maintenance costs.

The parking lot will remain in this alternative and is costly in terms of equipment, materials, and labor and results in a minor, adverse, and long-term impact on maintenance activities at the site. There is no visitor center or contact center for the park. Therefore, no consolidated space is available for visitor orientation and education. The "temporary" ticket booth

currently located outside the entrance of the fort will be relocated to a more appropriate location. Interpretive displays in the casemates of the fort and ranger programs are held often. Not having a formal visitor center has a minor adverse impact on operational efficiency resulting from the lack of consolidated visitor orientation space.

***Cumulative Impacts.*** Growth and development in the vicinity of the park and in the region as a whole would have a minor to moderate, long-term and adverse impact on operational efficiency. The most important impact would be increased visitation to the park, which would further stretch the ability of NPS staff to protect, preserve, and interpret park resources, and place greater demands on the limited existing visitor and staff facilities.

#### **Conclusion**

Under Alternative D, impacts to operational efficiency resulting from the retention the parking lot and relocating some administrative functions from the fort to a new structure would result in impacts that are minor, long-term, and beneficial to operational efficiency.

#### **CONSISTENCY WITH THE PLANS OF OTHERS**

Under Alternative D, park management would change to enhance resource protection and improve visitor opportunities. There would be only beneficial impacts on the plans of surrounding communities or other area neighbors.

Park management is active in the local community. It maintains a close working relationship with those historical associations, societies, and organizations that have legitimate goals in preserving and interpreting the historical values of the City of St. Augustine. The park continues to

cooperate on issues of mutual interest and concern and works to strengthen its existing relationships with friends support groups, volunteers, and local government officials. Park management also cooperates with local and state government offices and community and civic organizations to maintain the scenic qualities and historic setting of the park. This coordination serves to heighten visitor enjoyment and appreciation of the park and its prominence in the overall historic setting of St. Augustine.

In recent years, there has been a growing recognition of the city's historic and architectural significance. As a result, much has been accomplished in recreating the city in conformance with original Spanish and English designs. Since 1960, more than 40 structures have been restored or reconstructed and several gardens reestablished. This effort has centered on the two blocks of St. George Street leading south from the City Gate. The city, business firms, private individuals, and a number of organizations or agencies have contributed to this remarkable achievement. Alternative D for the park is consistent with these state and local goals.

#### **IMPACTS ON ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL**

Although St. Augustine and the park are very walkable and shuttle services are currently available for a fee, private vehicles would continue to be the primary means of transportation to the park.

Any new construction that the NPS initiates will meet all pertinent building codes to aid in energy conservation.

#### **UNAVOIDABLE ADVERSE EFFECTS**

Unavoidable adverse impacts are defined as impacts that cannot be fully mitigated or

avoided. This alternative would result in minor to major adverse impacts on cultural resources in some areas of the park due to human use. Only closing these resources to most all visitation would fully mitigate these impacts. Impacts would be expected to be minor in terms of overall loss.

reduce maintenance and enhance long-term productivity.

#### **IRRETRIEVABLE OR IRREVERSIBLE COMMITMENTS OF RESOURCES**

All facility development and use is considered essentially a permanent commitment of resources, although removal of facilities and site restoration has occurred and could still occur. New facilities would be developed on sites that have negligible resource value, which would be specifically considered during detailed implementation planning.

#### **RELATIONSHIP BETWEEN SHORT TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

For the purposes of this discussion, short term is defined as the time span for which this GMP/EIS is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

The resource prescriptions included in the management units, along with required management, are intended to ensure the achievement and maintenance of the purposes for which the park was established. All use and development would occur in the context of sustainable resource conditions that, in turn, permit sustained levels of visitor use and satisfaction.

With increasing visitor use expected, impacts to cultural resources in the park would be more aptly prevented by the orientation and educational opportunities that a visitor center provides. This would



# APPENDIX A: LIST OF RELEVANT LEGISLATION

*Laws and executive orders that apply to the management of Castillo de San Marcos National Monument are provided below.*

## NATIONAL PARK SERVICE ENABLING LEGISLATION

Act of August 25, 1916 (National Park Service Organic Act), Public Law (P.L.) 64-235, 16 United States Code (U.S.C.) Section (§)1 *et sequens (et seq .(and the following ones))*as amended

Reorganization Act of March 3, 1933, 47 Stat. 1517

General Authorities Act, October 7, 1976, P.L.94-458, 90 Stat. 1939, 16 U.S.C. §1a-1 *et seq.*

Act amending the Act of October 2, 1968 (commonly called Redwoods Act), March 27, 1978, P.L.95-250, 92 Stat. 163, 16 U.S.C. Subsection(s)(§§)1a-1, 79a-q

National Parks and Recreation Act, November 10, 1978, P.L.95-625, 92 Stat. 3467; 16 U.S.C. §1 *et seq .*

## OTHER LAWS AFFECTING NPS OPERATIONS

### Accessibility

Americans with Disabilities Act, P.L.101-336, 104 Stat. 327, 42 U.S.C. §12101

Architectural Barriers Act of 1968, P.L.90-480, 82 Stat. 718, 42 U.S.C. §4151 *et seq.*

Rehabilitation Act of 1973, P.L.93-112, 87 Stat. 357, 29 U.S.C. §701 *et seq.* as amended by the Rehabilitation Act Amendments of 1974, 88 Stat. 1617

### Cultural Resources

American Indian Religious Freedom Act, P.L.95-341, 92 Stat. 469, 42 U.S.C. §1996

Antiquities Act of 1906, P.L.59-209, 34 Stat. 225, 16 U.S.C. §432 and 43 Code of Federal Regulations (CFR) 3

Archaeological and Historic Preservation Act of 1974, P.L.93-291, 88 Stat. 174, 16 U.S.C. §469

Archaeological Resources Protection Act of 1979, P.L.96-95, 93 Stat. 712, 16 U.S.C. §470aa *et seq.* and 43 CFR 7, subparts A and B, 36 CFR 79

National Historic Preservation Act as amended, P.L.89-665, 80 Stat. 915, 16 U.S.C. §470 *et seq.* and 36 CFR 18, 60, 61, 63, 68, 79, 800

Protection of Historic and Cultural Properties, Executive Order (E.O.)11593; 36 CFR 60, 61, 63, 800; 44 Federal Register (FR)6068

Public Buildings Cooperative Use Act of 1976, P.L.94-541, 90 Stat. 2505, 42 U.S.C. §4151-4156

## **Natural Resources**

Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing the National Environmental Policy Act, E.S.80-3, 08/11/80, 45 FR 59109

Clean Air Act as amended, P.L.Chapter 360, 69 Stat. 322, 42 U.S.C. §7401 *et seq.*

Coastal Zone Management Act of 1972 as amended, P.L.92-583, 86 Stat. 1280, 16 U.S.C. §1451 *et seq.*

Endangered Species Act of 1973, as amended, P.L.93-205, 87 Stat. 884, 16 U.S.C. §1531 *et seq.*

Executive Order 11988: Floodplain Management, 42 FR 26951, 3 CFR 121 (Supp 177)

Executive Order 11990: Protection of Wetlands, 42 FR 26961, 3 CFR 121 (Supp 177)

Executive Order 11991: Protection and Enhancement of Environmental Quality

Federal Insecticide, Fungicide, and Rodenticide Act, P.L.92-516, 86 Stat. 973, 7 U.S.C. §136 *et seq.*

Federal Water Pollution Control Act (commonly referred to as Clean Water Act), P.L.92-500, 33 U.S.C. §1251 *et seq.* as amended by the Clean Water Act, P.L.95-217

Fish and Wildlife Coordination Act of 1958 as amended, P.L.85-624, 72 Stat. 563, 16 U.S.C. §661 *et seq.*

Migratory Bird Conservation Act, P.L.Chapter 257, 45 Stat. 1222, 16 U.S.C. §715 *et seq.*

Migratory Bird Treaty Act of 1918, P.L.186, 40 Stat. 755

National Environmental Policy Act of 1969, P.L.91-190, 83 Stat. 852, 42 U.S.C. §4321 *et seq.*

National Park System Final Procedures for Implementing E.O.11988 and 11990 (45 FR 35916 as revised by 47 FR 36718)

Protection and Enhancement of Environmental Quality, E.O.11514 as amended, 1970, E.O.11991, 35 FR 4247; 1977, 42 FR 26967)

Resource Conservation and Recovery Act, P.L.94-580, 30 Stat. 1148, 42 U.S.C. §6901 *et seq.*

Rivers and Harbors Act of 1899, 33 U.S.C.Chapter 425, as amended by P.L.97-332, October 15, 1982 and P.L.97-449, 33 U.S.C. §§401-403

Water Resources Planning Act of 1965 (P.L.89-80, 42 U.S.C. § 1962 *et seq.*) and Water Resource Council's Principles and Standards, 44 FR 723977

Watershed Protection and Flood Prevention Act, P.L.92-419, 68 Stat. 666, 16 U.S.C. §100186

## **Other**

Administrative Procedures Act, 5 U.S.C. § 551--559, §§701-706

Concessions Policy Act of 1965, P.L.89-249, 79 Stat. 969, 16 U.S.C. § 20 *et seq.*

Department of Transportation Act of 1966, P.L.89-670, 80 Stat. 931, 49 U.S.C. § 303

Energy Supply and Environmental Coordination Act of 1974

Executive Order 12003: Energy Policy and Conservation, 3 CFR 134 (Supp 1977), 42 U.S.C. § 2601

Executive Order 12008: Federal Compliance with Pollution Control Standards

Executive Order 12372: Intergovernmental Review of Federal Programs, 47 FR 30959

Forest and Rangeland Renewable Resources Planning Act, P.L.95-307, 92 Stat. 353, 16 U.S.C. §1600 *et seq.*

Freedom of Information Act, P.L.93-502, 5 U.S.C. §552 *et seq.*

Intergovernmental Cooperation Act of 1968, P.L.90-577, 40 U.S.C. §§ 531--535 and 31 U.S.C. §§6501-6508

Intergovernmental Coordination Act of 1969, 42 U.S.C. §§4101, 4231, 4233

Noise Control Act of 1972 as amended, P.L.92-574, 42 U.S.C. §4901 *et seq.*

Outdoor Recreation Coordination Act of 1963, P.L.88-29, 77 Stat. 49

Payment in Lieu of Taxes Act, P.L.94-565, 90 Stat. 2662, 31 U.S.C. §6901 *et seq.*

Surface Transportation Assistance Act of 1982, 96 Stat. 2097, 23 U.S.C. §§101 and many others

Wildfire Disaster Recovery Act, P.L. 101-286

## APPENDIX B: CONSULTATION AND CIVIC ENGAGEMENT

This *Draft GMP/EIS* for Castillo de San Marcos National Monument is based upon the ideas, concerns, and suggestions of NPS staff and managers, representatives of state, local, and other Federal agencies, private organizations and individuals, elected officials and the general public at large. These ideas, concerns, and suggestions were presented and recorded in individual stakeholder meetings, by participation in public meetings, through responses to newsletters, and comments entered on the Castillo de San Marcos GMP/EIS website.

### Stakeholder Meetings and Consultations

The consultation and civic engagement process began with a series of meetings with NPS subject matter experts and managers in the Southeast Regional Office in Atlanta during the second and third weeks of June, 2001. Meetings with various local agency and organization representatives began during the second week of March 2002 and continued during the last week of April, 2002. Agencies and organizations consulted during this period included various tour bus companies, historical societies, State and Federal agencies, the Chamber of Commerce, the St. Augustine Visitors and Conventions Bureau, the St. Johns County Planning Department, the St. Augustine City Manager's office, the Historic District Manager, and the St. Augustine Police Chief, among others. During the third week of February, 2003 the planning team met with representatives of the residential neighborhood on the northeast side of the park boundary and with the Colonial St. Augustine Foundation. Government to government consultation with federally recognized Indian tribes took place in person and by telephone during July and August of 2003.

### Public Meetings and Newsletters

The planning team kept the public informed and involved in the planning process through public meetings in the St. Augustine area and through the distribution of newsletters. Representatives of governmental agencies, organizations, businesses, legislators, local governments, and interested citizens contributed their names and addresses to a mailing list for the project. The NPS published a notice of intent to prepare the GMP/EIS in the *Federal Register* on October 9, 2001.

Newsletter No.1 described the planning effort and solicited public input. Public open house meetings were held at the St. Augustine Beach City Hall on May 29 and 30, 2002. The NPS received comments in the meetings and in response to the first newsletter. A second newsletter, presenting the preliminary management alternatives was published and distributed during the fall of 2004. This newsletter was also posted on the National Monument's GMP/EIS website. Finally, on December 8 and 9, 2004, the planning team presented the preliminary alternatives to the general public at the St. Augustine Beach City Hall.



## APPENDIX C: SCOPING COMMENTS

*Scoping is the name for the process by which Federal agencies such as the NPS seek and record suggestions, concerns, ideas, and issues that stakeholders (park staff and management, other NPS staff and managers, Federal, state, and local public agencies, elected officials, and a variety of organizations, associations, and park neighbors) want to see considered and addressed in the planning document and environmental impact statement. This process consisted of individual meetings with individuals, agencies, and organizations, public meetings, newsletters with response cards, and a GMP/EIS website. The following lists of bulleted items represent the full range of public suggestions for the planning process. The comments have been sorted by broad categories.*

### **Administrative Uses of the Fort**

- The restrooms, Eastern National bookstore, and ticketing kiosk should be removed from the fort and relocated.
- Remove administrative functions from the fort (restrooms, bookstore, rangers' offices, and fee booth operation).
- Would like to see most offices and administrative uses removed from the fort (CASA), including the Eastern bookstore, even though sales in the fort are higher than they would be in another location. More office space would permit more products for visitors. Possible location: part of the existing parking lot.
- Relocate ticket booth.
- Current location and use of bathrooms and administrative offices is OK inside the fort. We need these functions in the fort.
- Visitor services should be moved out of the fort.
- There shouldn't be a visitor center on the west side of AIA because this would increase the flow of pedestrians across AIA from the Spanish Quarter to the fort and would cause more pedestrian accidents and impede vehicular traffic.
- Visitor center should be removed from the fort site. The Colonial St. Augustine Foundation would like to see the commercial strip between the Spanish Quarter and the park removed and a combined visitor center created in that space that serves both entities.
- There could also be a visitor center on the green just south of the park's administrative offices.

### **Parking Issue**

- Parking lot has circulation problems.
- Remove the parking lot from the site. It is a visual intrusion on the historic scene.
- Restore parking lot to natural conditions. Current parking lot is a big safety issue, maintenance issue, and visual intrusion.
- Open the park parking lot at night.
- The parking lot is important to the local business community.
- Need to manage the presence of automobiles at the park better.
- Parking is an issue.

## Visitor Center

- Relocate visitor center contact area to less intrusive location.
- Can a visitor center be dug into the glacis?
- CASA (*CASA is NPS shorthand for Castillo de San Marcos National Monument*) needs a visitor center outside the fort.
- Off site visitor center might cause people to avoid coming to the fort itself. People might spend 15 minutes in a free visitor center, view exhibits, buy souvenirs and then skip the fort entirely. Keep them engaged but keep them engaged inside rather than elsewhere in the community. It is possible to design displays that are weatherproof and without air conditioning.
- Go to north fort green to establish visitor contact station.
- There shouldn't be a visitor center on the west side of A1A because this would increase the flow of pedestrians across A1A from the Spanish Quarter to the fort and would cause more pedestrian accidents and impede vehicular traffic.
- A new visitor center should be within the current park boundary. Convert park offices to a visitor center and move the offices and maintenance area off site.
- Visitor center should be removed from the fort site. The Foundation would like to see the commercial strip between the Spanish Quarter and the park removed and a combined visitor center created in that space that serves both entities.
- The park parking lot is a potential site for a visitor center.
- There could also be a visitor center on the green just south of the park's administrative offices.

## Recreation on the Green

- Any chance for multi-purpose paths (bike, hike, etc.)?
- There should be picnic tables on the green at the park.
- Don't put picnic tables on the green.
- Glacis needs to be preserved but there are lots of requests to use it for special events.
- Too much recreation on the north green.
- Would like to see a stage or amphitheater outside the fort for community programs.

## Visitor Experience

- How can more groups be accommodated?
- The park is best early in the morning before opening and at night after closing. Can the hours be extended?
- Site needs to be more pedestrian friendly.
- \$5.00 entrance fee is too high.
- There should be more historical re-enactments and costumed interpretation.
- A printed schedule of re-enactments, encampments, living history demonstrations, etc. would be useful.
- Water in the moat. Would like to see water in the moat. Explanation of why water is not in the moat should be in park brochure next time it is redone. Possible wayside sign to explain?
- Wants to see the fort stay.

- The park is the greatest monument in Florida.

### **Resource Condition**

- Should the fort's walls be covered with stucco?
- How can people be brought to the park in a manner less destructive of the grounds?
- Do a geophysical archeological survey of the grounds surrounding the Castillo de San Marcos.
- Bushes on edge of parking lot look terrible.
- Will you put more trees along the paved walkway on the north green?
- Don't paint the fort. It would be dangerous to the coquina.
- You do a good job of keeping up the grounds.
- Will you be able to preserve the battery?

### **Partnerships with the City**

- Possible partnering opportunity with the city for use of the City's historic district visitor center across the street as a site for a park Visitor Center. The auditorium could be used to present an introductory film.
- Opportunities for cross-promotions, partnerships should be explored.
- Link interpretation at CASA with City's interpretation of North St. George Street.
- The NPS and the state should not tear down the Mary Peck house. *(This comment was made at least 2 years before the Mary Peck house was moved to a new location. Furthermore, NPS never owned the Mary Peck house and had no control over its fate.)*
- Fundraising activities on the gun deck could be tied in with Super Bowl in Jacksonville in 2005.

### **Commercial Tour Operators**

- Water taxi or tour boat between CASA and FOMA.
- Would like to be able to rent the fort at night for private parties.
- Would like to see evening programs at CASA for tour groups and conventions. Business clients, corporate groups could and would pay for catered dinners, entertainment, interpretive programs, etc.

### **Miscellaneous**

- Transfer ownership of Orange Street from NPS to the City of St. Augustine.
- Security is an issue. Closing the park grounds from midnight to 5 am helps.
- Eventually nighttime security at the fort may be necessary.

### **Impacts on Adjacent Neighborhood**

- Preserve the Abbot tract community in conjunction with the fort. The fort can engage the community and set some guidelines that the City can understand.
- What are plans for the gated entrance on Water Street? Please don't open it permanently again?

- There were questions about the new maintenance compound building and the presence of a dumpster behind the compound.
- The NPS and the state should not tear down the Mary Peck house. (*The Mary Peck house has been moved to a new location.*)

## APPENDIX D: CHOOSING BY ADVANTAGES

The NPS uses a method of ranking GMP/EIS alternatives that was originally developed by Jim Suhr, N. Ogden, Utah. CBA is a decision-making process based on determining the advantages of different alternatives for a variety of factors or goals. The advantages are then weighed and summarized to help identify the preferred alternative.

One of the greatest strengths of the CBA system is its fundamental philosophy: decisions must be anchored in relevant facts. For example, the question “Is it more important to protect natural resources or cultural resources?” is “unanchored”; it has no relevant facts on which to make a decision. Without such facts, it is impossible to make a defensible decision.

The CBA process instead asks us to decide which alternative gives the greatest advantage in protecting natural resources and cultural resources. To answer this question, relevant facts would be used to determine the advantages the alternatives provide for both kinds of resources. For example, we may have facts that show that two alternatives disturb or restore equal amounts of vegetation, so neither alternative would be more advantageous than the other in protecting natural resources. On the other hand, we may have facts that show that one alternative would disturb five known archeological sites, while the other alternative would disturb only one. This alternative, then, would be more advantageous since it provides natural resource protection (equal to the other alternative) and also provides the greatest advantage for cultural resources. This process is an objective way to perform this tedious and complicated task which provides a way to engage participants, and

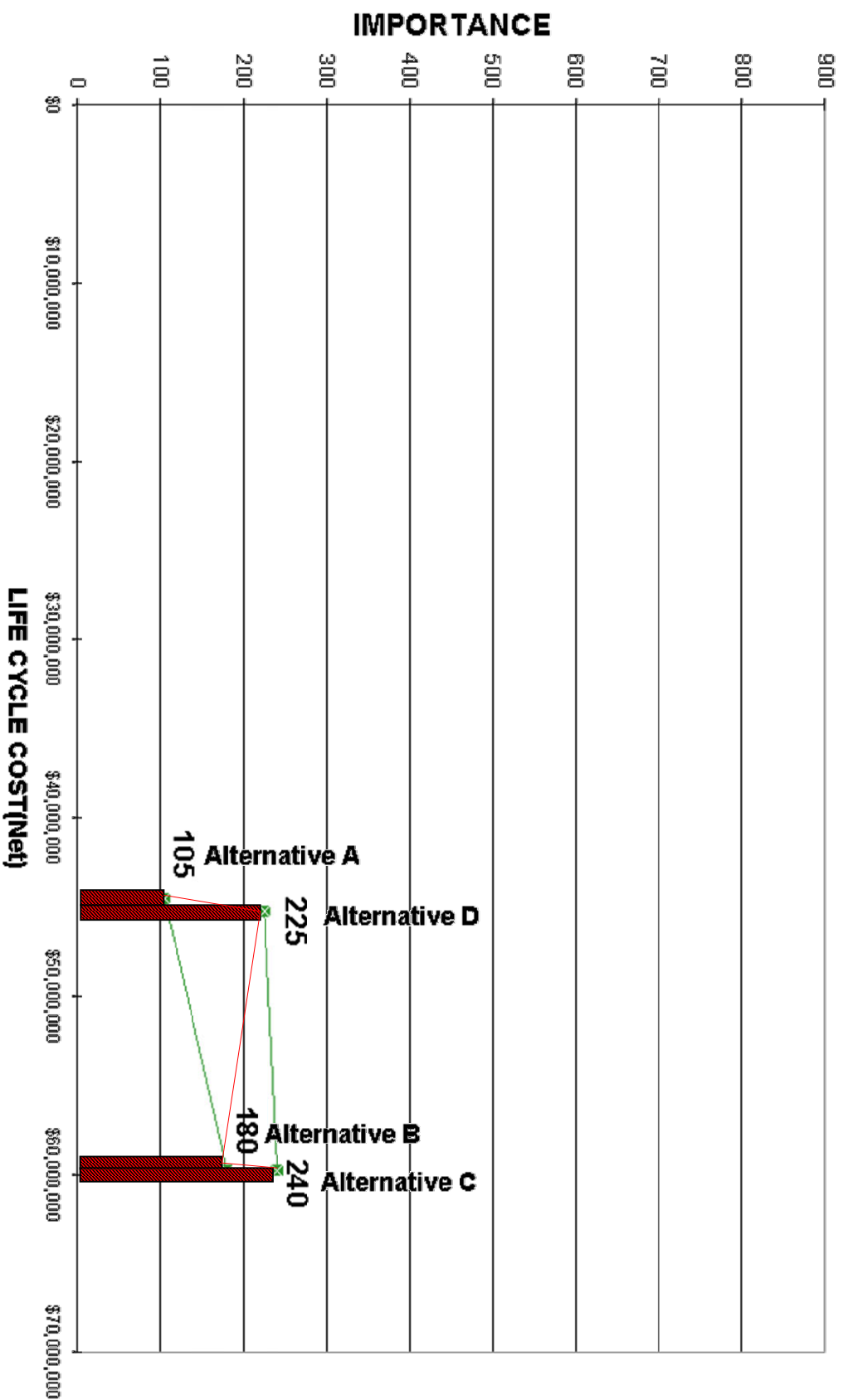
come to complete consensus. It could be used to allocate capital funding or prioritize planning efforts. Its benefits include providing corporate memory and consistency, along with buy-in from all levels of participation.

The preferred alternative for this Draft GMP/EIS, was selected by the CBA method, and is the NPS’s proposed action.

The matrix used to evaluate the advantages of each alternative as well as the line-graph that illustrates the advantage of the preferred alternative follow this summary of the CBA method.

FACTORS	ALTERNATIVE A (NO ACTION)	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
PROTECT AND ENHANCE THE CASTILLO - Extent to which alternative returns casemates to historic conditions	<ul style="list-style-type: none"> <li>Continue to use 7 casemates for visitor and park services</li> </ul>	<ul style="list-style-type: none"> <li>Continue to use 4 casemates for visitor and park services</li> </ul>	<ul style="list-style-type: none"> <li>Continue to use 5 casemates for visitor and park services</li> </ul>	<ul style="list-style-type: none"> <li>Continue to use 4 casemates for visitor and park services</li> </ul>
PROTECT AND ENHANCE THE LANDSCAPE - Extent to which intrusive, non-historic features / uses are present in the landscape.	<ul style="list-style-type: none"> <li>Continue location of fee station, parking lot, trailer-train/bus drop-zone in the landscape</li> </ul>	<ul style="list-style-type: none"> <li>Remove &amp; relocate fee station to less sensitive area</li> <li>Remove 2/3 of parking lot</li> <li>Construct visitor center in headquarters area</li> <li>Widen sidewalk &amp; construct 2 wayside areas</li> </ul>	<ul style="list-style-type: none"> <li>Remove modern intrusions from 2 casemates</li> <li>Remove &amp; relocate fee station to less sensitive area</li> <li>Remove 3/4 of parking lot</li> </ul>	<ul style="list-style-type: none"> <li>Remove modern intrusions from 3 casemates</li> <li>Remove &amp; relocate fee station to less sensitive area</li> <li>Continue location of parking lot &amp; trailer-train/bus drop-zone in the landscape</li> </ul>
PROVIDE CONVENIENT VISITOR ACCESS - Distance to visitor parking for visitor access to the fort entrance.	<ul style="list-style-type: none"> <li>Maintain general parking &amp; train/bus drop-zone at fort entrance</li> </ul>	<ul style="list-style-type: none"> <li>General parking at new city facility</li> <li>Maintain handicapped parking &amp; train/bus drop-zone at fort entrance</li> </ul>	<ul style="list-style-type: none"> <li>General parking at new city facility</li> <li>Maintain handicapped parking &amp; train/bus drop-zone at fort entrance</li> </ul>	<ul style="list-style-type: none"> <li>Maintain general parking &amp; train/bus drop-zone at fort entrance</li> </ul>
PROVIDE COMPREHENSIVE VISITOR EXPERIENCE - Degree to which the alternative provides the visitor with more diverse experiences, including both Civilian and Military life in St. Augustine.	<ul style="list-style-type: none"> <li>All interpretive activities occur at the Castillo</li> <li>Primary focus is on military life</li> </ul>	<ul style="list-style-type: none"> <li>Construct visitor center in the park near headquarters to orient visitors &amp; expand interpretation of Castillo and St. Augustine</li> <li>Use 3 additional casemates to interpret military life at the Castillo</li> </ul>	<ul style="list-style-type: none"> <li>Construct visitor center in Spanish Quarter to orient visitors &amp; expand interpretation of Castillo and St. Augustine</li> <li>Use 2 additional casemates to interpret military life at the Castillo</li> </ul>	<ul style="list-style-type: none"> <li>Use 3 additional casemates to interpret military life at the Castillo</li> </ul>
TOTAL IMPORTANCE OF ADVANTAGES	105	180	240	225

# Castillo de San Marcos NM General Management Plan



## APPENDIX E: REFERENCES

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# APPENDIX F: LIST OF PREPARERS & CONSULTANTS

*The following individuals contributed to the preparation of this GMP/EIS*

## **Castillo de San Marcos National Monument**

Gordon Wilson, Superintendent  
Luis Gonzalez, Site Supervisor  
Dean Garrison, former Chief of Maintenance  
Robin Leatherman, Chief of Maintenance  
Shirley Vellis, Chief of Administration  
Kim Kirk, Chief Ranger  
Tom Sims, Fee Program Specialist  
Dave Parker, former Site Supervisor, Fort Matanzas National Monument

## **Southeast Regional Office Planning Team**

David Libman, Planner  
John Barrett, Planner  
Amy Wirsching, Planner  
Tim Bemisderfer, Landscape Architect

## **Southeast Regional Office Consultants**

The GMP/EIS planning team met with the following individuals in the Southeast Regional Office at the beginning of the GMP/EIS process to involve all NPS disciplines and program areas in the enumeration of planning issues, resource management concerns, and visitor experience priorities. Both Wally Hibbard and Fred Shott had prior management level experience at the park and many of the other consultants had been involved with various projects there.

Allen Bohnert, Regional Curator  
Richard Ramsden, Chief, Architecture Division  
Bob Blythe, Historian  
Kirk Cordell, former Chief, Cultural Resources Division  
Wally Hibbard, Program Manager  
Fred Shott, former Chief, Facilities Management  
Lucy Lawliss, Historical Landscape Architect  
David Hasty, Historical Landscape Architect  
Don Wollenhaupt, Chief, Interpretation Division  
J. Anthony Paredes, PhD., Regional Ethnographer

## **Tribal Consultations**

In accordance with the various laws, policies, and Executive Orders concerning consultation with and outreach to Federally recognized tribal governments, the Superintendent of Castillo de

San Marcos National Monument sent letters to the following tribes inviting their formal participation in the park's general management planning process.

Alabama-Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Apache Tribe of Oklahoma, Arapaho Tribe of Wind River Reservation, Wyoming, Caddo Indian Tribe of Oklahoma, Cheyenne-Arapaho Tribes of Oklahoma, Chickasaw Nation, Comanche Indian Tribe, Oklahoma, Coushatta Indian Tribe, Fort Sill Apache Tribe of Oklahoma, Jicarilla Apache Tribe of Jicarilla Apache Indian Reservation, New Mexico, Kialegee Tribal Town, Kiowa Indian Tribe of Oklahoma, Mescalero Apache Tribe of the Mescalero Reservation, New Mexico, Miccosukee Indian Tribe, Muscogee (Creek) Nation, Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana, Poarch Creek Indians, San Carlos Apache Tribe of the San Carlos Reservation, Arizona, Seminole Nation of Oklahoma, Seminole Tribe of Florida, Thlopthlocco Tribal Town, Tonto Apache Tribe of Arizona, White Mountain Apache Tribe of the Fort Apache Reservation, Arizona, and the Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona.

Of these 25 tribes the following indicated an interest in consulting: Cheyenne-Arapaho Tribes of Oklahoma, Fort Sill Apache Tribe of Oklahoma, Mescalero Apache Tribe of the Mescalero Reservation, Miccosukee Indian Tribe, and the Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation.

Of these, one representative of the Fort Sill Apache Tribe of Oklahoma consulted in person for two days and two representatives of the Miccosukee Indian Tribe consulted in person for one day, and one representative of the Mescalero Apache Tribe of the Mescalero Reservation of New Mexico consulted by telephone.

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As the Nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public land and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environment and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to insure that their development is in the best interest of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

